

This electronic thesis or dissertation has been downloaded from the King's Research Portal at <https://kclpure.kcl.ac.uk/portal/>



The development of Russian-Soviet operational art, 1904-1937, and the imperial legacy of Soviet military thought.

Harrison, Richard W

The copyright of this thesis rests with the author and no quotation from it or information derived from it may be published without proper acknowledgement.

END USER LICENCE AGREEMENT



Unless another licence is stated on the immediately following page this work is licensed

under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International

licence. <https://creativecommons.org/licenses/by-nc-nd/4.0/>

You are free to copy, distribute and transmit the work

Under the following conditions:

- Attribution: You must attribute the work in the manner specified by the author (but not in any way that suggests that they endorse you or your use of the work).
- Non Commercial: You may not use this work for commercial purposes.
- No Derivative Works - You may not alter, transform, or build upon this work.

Any of these conditions can be waived if you receive permission from the author. Your fair dealings and other rights are in no way affected by the above.

Take down policy

If you believe that this document breaches copyright please contact librarypure@kcl.ac.uk providing details, and we will remove access to the work immediately and investigate your claim.

KING'S COLLEGE LONDON

THE DEVELOPMENT OF RUSSIAN-SOVIET OPERATIONAL ART, 1904-1937,

AND THE IMPERIAL LEGACY IN SOVIET MILITARY THOUGHT

A Dissertation Submitted in Candidacy for the Degree of

Doctor of Philosophy

DEPARTMENT OF WAR STUDIES

by

RICHARD W. HARRISON

Arlington, Virginia, USA

MAY, 1994



THESIS ABSTRACT

The goal of this dissertation is to determine the extent of the pre-revolutionary Russian army's influence on the creation and development of the body of Soviet military thought known as operational art. This theory, which deals with the preparation and conduct of military operations at the army and front (army group) level, had its practical and theoretical origins in the pre-1917 army and was subsequently expanded upon by the successor Red Army. The conclusions reached are based upon an examination of the major military and military-theoretical developments which took place between 1904 and 1937. Pertinent political and economic events, relevant to the narrative, are highlighted as well.

The dissertation is divided into four chapters, each corresponding to an identifiable period in Russian-Soviet military history. These include the first chapter, covering the pre-revolutionary period from 1904 to 1917, which focuses on the military operations of the Russo-Japanese and First World wars, as well as interwar theoretical studies. The second chapter deals with military operations in the Russian Civil War, 1918-1920, and the war with Poland, as well as the role of the former tsarist officers in staffing the early Red Army. Chapter three covers the decade of the 1920s and examines the period's doctrinal and strategic controversies, including the initial formulation of the theory of operational art, and the theory of consecutive operations. The fourth chapter highlights the Red Army's technical transformation from 1930 to 1937, and its effect on strategy and tactics, and the development of the theory of the deep operation. This is followed by a brief epilogue detailing the effects of the military purge on the Red Army's command and theoretical cadres, as well as a longer passage summarizing the conclusions reached.

TABLE OF CONTENTS

Thesis Abstract	3
Acknowledgements	6
List of abbreviations	7
Introduction	8
CHAPTER I: OPERATIONS IN THE LATE-TSARIST PERIOD, 1904-1917	21
Introduction	21
The Russo-Japanese War	28
Reform and Recovery	41
Operations in the First World War	65
CHAPTER II: OPERATIONS DURING THE RUSSIAN CIVIL WAR AND THE WAR WITH POLAND, 1918-1920	88
Introduction	88
The Military Specialists	94
Civil War Operations, 1919-1920	108
Operations in the War Against Poland, 1920	128
CHAPTER III: THE BIRTH OF SOVIET OPERATIONAL ART, 1921-1929	141
Introduction	141
Doctrinal and Strategic Debates	147
The Shaping of Operational Art	171

The Theory of Consecutive Operations	195
CHAPTER IV: THE FLOWERING, 1930-1937	222
Introduction	222
The Red Army's Technical Reconstruction	228
Strategy and Tactics	240
The Deep Operation	265
EPILOGUE	303
CONCLUSIONS	308
BIBLIOGRAPHY	322
TABLES	
1. Red Army Consecutive Offensive Operations, 1918-1920	202
2. Soviet Industrial Production, 1928-37	224
3. Soviet Weapons Production, 1930-37	228
4. The Red Army's Weapons Park, 1928-35	230
MAPS	
1. The Sha-ho Operation, 4-17 October, 1904	315
2. The Mukden Operation, 19 February-10 March, 1905	315
3. The Battle of Galicia, 19 August-26 September, 1914	316
4. The Lutsk Operation, Summer 1916	317
5. The Eastern Front, April-June, 1919	318
6. The Southern Front, October-November, 1919	318
7. The War with Poland, June-August, 1920	319
8. The Northern Tauride, October-November, 1920	320
9. Consecutive Operations	320
10. The Army Deep Operation	321
11. The Front Deep Operation	321

ACKNOWLEDGEMENTS

I would like to thank the Madison Center for Educational Affairs, the United States Army Center of Military History, and the Kennan Institute for Advanced Russian Studies, all of Washington, DC, and the University of London's Central Research Fund, for their generous financial support of my work. I am also deeply indebted to Col. N.M. Ramanichev, Col. F.D. Sverdlov, Col. R.A. Savushkin, and Gen.-Lt. V.T. Iminov for their comments and advice. I am also grateful to Alice J. Smith, for her constant moral support over the years. Finally, special thanks go to Professor Brian J. Bond, whose patience and guidance have proved invaluable throughout the course of my work.

LIST OF ABBREVIATIONS

Krasnaia Zvezda, (Red Star)

V-IZh, Voenno-Istoricheskii Zhurnal, (Military-Historical Journal)

V&R, Voina i Revoliutsiia, (War and Revolution)

Glavkom, Glavnokomanduiushchii, (Commander-in-Chief)

RKKA, Raboche-Krest'ianskaia Krasnaia Armia, (Worker's-Peasant's Red Army)

RVSR, Revoliutsionnyi Voennyi Sovet Respubliki, (Revolutionary Military Council of the Republic)

TsGASA, Tsentral'nyi Gosudarstvennyi Arkhiv Sovetskoi Armii, (Central State Archives of the Soviet Army)

The transliteration of Russian words has been done according to the system used by the U.S. Library of Congress.

INTRODUCTION

The goal of this dissertation to determine to what degree the Soviet theory of operational art up to 1937 owes its existence to the practical and intellectual inheritance of the pre-revolutionary Russian army and, conversely, to what extent may the Red Army's operational thought be ascribed to circumstances peculiar to the Soviet regime. In the course of describing the overall development of operational thought and practice during the pre-revolutionary (1904-17) and post-revolutionary (1918-37) eras, I plan to reach certain conclusions regarding the relative weight of the contribution made by the imperial army to the formulation of operational art as it stood by the latter half of the 1930s.

The choice of the 1904-37 period as a subject of study is significant, and encompasses the time from the appearance of the first modern operations during the Russo-Japanese War to the beginning of Joseph Stalin's military purge. Such a broad scope of investigation will enable the reader to examine at length the imperial army's early attempts to understand the new operational level of war, both on the battlefield and in an academic setting, as well as similar efforts by the follow-on Red Army. The dissertation naturally concludes with the physical destruction of a large part of the tsarist-era and later military cadres and the emergence of a qualitatively new Red Army.

The dissertation's centrepiece, operational art, is the theory and practice of waging war at the operational level, which, unfortunately, has heretofore been almost completely unknown in the West, even among the professional military. Moreover, even those authors who have been aware of operational art's existence have often either dismissed it outright, failed to understand it, or concerned them-

selves only with individual aspects of the theory.¹ For the sake of clarity and consistency, I will be guided throughout by the definition given in a 1958 Soviet work, which defines operational art (Russian, *operativnoe iskusstvo*) as

... a component part of military art, concerned with the elaboration of the theory and practice of preparing and conducting front and army operations of the different services of the armed forces. Operational art is the connecting link between strategy and tactics. Proceeding from the demands of strategy, operational art determines the methods of preparing and conducting operations for the achievement of strategic goals and serves as the point of departure for tactics, which organises the preparation and conduct of the combined arms battle in accordance with the operation's goals and tasks.²

Many of the theorists whose writings contributed to the development of operational art served in both the imperial and Red armies, thus making their role especially significant to the thesis. More to the point, any study of the role played by tsarist-era writers in this field must inevitably focus on the influence wielded by the so-called 'military specialists'. These were the former imperial officers who willingly or unwillingly joined the Red forces during the Russian Civil War and who continued to serve the Soviet regime in the postwar years as well. As the living embodiment of the imperial military-theoretical tradition, their role is critical to any attempt to determine the degree of theoretical continuity, or lack thereof, between the two regimes. Particular attention will thus be paid to the military specialists' theoretical and practical work in both the pre-1917 and post-revolutionary periods and how their ideas were received by the political-military authorities.

Among the thousands of military specialists who joined the Red

¹ See W.D. Jacobs, 'The Art of Operations', *Army*, XII (1961), no. 4, pp. 60-64; E.N. Luttwak, 'The Operational Level of War', *International Security*, V (1980-81), no. 3, pp. 61-79; J.J. Schneider, 'Theoretical Implications of Operational Art', *Military Review*, LXX (1990), no. 9, pp. 17-27; L.D. Holder, 'Training for the Operational Level', *Parameters*, XVI (1986), no. 1, pp. 7-13.

² B.N. Morozov, ed., *Kratkii Slovar' Operativno-Takticheskikh i Obshchevoiskovykh Sloz (Terminov)* [A Short Dictionary of Operational-Tactical and Combined-Arms Words (Terms)] (Moscow, 1958), p. 188.

Army, of particular interest are the careers of those graduates of the imperial General Staff Academy who later came to occupy important command, teaching and administrative posts. Since these graduates may reasonably be considered to be the old army's intellectual elite, their subsequent Soviet-era careers and theoretical writings merit especially close study.

However, among the many factors to be considered are those which inevitably distinguish the Red Army from its imperial predecessor. These include the Bolsheviks' imposition of a radical political ideology upon the army, in contrast to the relatively apolitical outlook of the Russian officer corps before the revolution. Another is the forced and massive industrialisation of the Soviet economy, beginning in 1929, which also had no counterpart in the pre-revolutionary years. In short, the utterly new political-economic situation which obtained following the Bolshevik coup influenced the Red Army's technical and theoretical development in ways not dreamed of by the old regime's officers, and was in many ways fundamentally at odds with the military legacy of imperial Russia. It is the tension inherent in the coexistence of these two currents that the answers to the dissertation's central thesis are to be found.

A number of other, lesser, factors will also be examined. Chief among these are organisational-administrative questions, such as the persistence of the front (army group) instance of command, and the enduring system of Stavka (supreme command)-front-army subordination in wartime. On the other hand, organisational incongruities, such as the post-1929 creation of large air and mechanised formations, which had no counterpart in the pre-revolutionary era, will also be examined.

The dissertation consists of four chapters, each corresponding to an identifiable and self-contained period in Russian-Soviet military history. Chapter I deals with the rise of the operation as a distinct form of military endeavor prior to 1904, as the result of socio-economic and technical changes in warfare. The chapter examines the operationally-significant features of the Russo-Japanese and

First World wars, and includes an extensive survey and analysis of the interwar (1906-14) literature dealing with operations. Chapter II is devoted to the operational events on the main fronts of the Russian Civil War and the war with Poland, and examines salient features of the Red Army's conduct of operations. The chapter also examines the role the military specialists played in the Red Army's victory. Chapter III deals with the first interwar decade (1921-29) and the theoretical works of the former military specialists and the 'red commanders', as the more politically-attuned non-professional soldiers who achieved prominence during the Civil War were known. Also investigated is the role of both groups in the formulation of a specifically Soviet military doctrine and the development of the theory of 'consecutive operations'. Chapter IV covers the period from the onset of massive industrialisation to the eve of Stalin's military purge (1930-37), and encompasses the Red Army's technical transformation from a predominantly infantry-cavalry force to a modern mechanised army. This chapter deals primarily with the effects of this change on the fields of strategy and tactics and the elaboration of the theory of the 'deep operation'.

Each chapter, with the exception of the first, also includes a brief introductory section, in which the salient political, economic, technical and military-administrative developments of the period are highlighted. Where useful, short biographical sketches of the more important theorists are included in the narrative. The dissertation concludes with a brief description of the purge's effect on the armed forces, and an extensive explanation of the conclusions reached regarding the main thesis.

The conclusions will be based primarily on the original, open-source works of those theorists who participated in the development of operational art during the period in question, as well as a number of internal documents on the subject gleaned from the Russian mili-

tary archives.³ Other valuable sources are the collected works of some of the major theorists and anthologies of other writings of the period in question.⁴ The dissertation will also make use of the extensive memoir literature covering the period, which not only provides useful factual information, but also vividly portrays the tenor of the times.⁵ Also of great value are a number of official publications, particularly those of the Soviet period.⁶ Finally, a number of journals contain a great deal of original literature on the subject, written by the major participants.⁷

Unfortunately, a good deal of the English language secondary source material relevant to the thesis tends to be rather superficial. This is no doubt due in part to the linguistic and archival inaccessibility of much of the material, as well as the West's longstanding ignorance of operational art. The great mass of these

³ A.A. Neznamov, Sovremennaya Voina. Deistviya Polevoi Armii [Modern War. The Activities of a Field Army] (St. Petersburg, 1911); N.N. Movchin, Posledovatel'nye Operatsii po Opytu Marny i Visly [Consecutive Operations According to the Experience of the Marne and the Vistula] (Moscow and Leningrad, 1928); V.K. Triandafillov, Kharakter Operatsii Sovremennykh Armii [The Character of Operations of Modern Armies] (Moscow and Leningrad, 1929); A.I. Egorov, Tezisy Doklada 'Taktika i Operativnoe Iskusstvo RKKA na Novom Etape' [Theses of the Report 'The RKKA's Tactics and Operational Art at a New Stage'], July 1932. TsGASA, fond 31983, opis' 2, delo 18; N.E. Varfolomeev, Udarnaya Armiya [The Shock Army] (Moscow, 1933).

⁴ M.V. Frunze, Izbrannye Proizvedeniya [Selected Works] (Moscow, 1957); M.N. Tukhachevskii, Izbrannye Proizvedeniya [Selected Works] (Moscow, 1964); S.S. Kamenev, Zapiski o Grazhdanskoi Voine i Voennoy Stroitel'stve. Izbrannye Stat'i [Notes on the Civil War and Military Construction. Selected Articles] (Moscow, 1963); A.B. Kadishev, ed., Voprosy Strategii i Operativnogo Iskusstva v Sovetskikh Voennykh Trudakh (1917-1940 gg.) [Problems of Strategy and Operational Art in Soviet Military Works (1917-1940)] (Moscow, 1965).

⁵ A.M. Vasilevskii, Delo Vsei Zhizni [The Cause of a Lifetime] (Moscow, 1974); L.M. Sandalov, Perezhitoe [My Past] (Moscow, 1961); B.M. Shaposhnikov, Vospominaniya. Voenno-Nauchnyi Trudy [Memoirs. Military-Scientific Works] (Moscow, 1974); N.N. Voronov, Na Sluzhbe Voennoi [On Military Service] (Moscow, 1963).

⁶ Narodnyi Komissariat po Voennym i Morskim Delam, Polevoi Ustav RKKA [RKKA Field Manual] (Moscow and Leningrad, 1929); Narodnyi Komissariat Oborony, Vremennyi Polevoi Ustav RKKA 1936 [1936 RKKA Provisional Field Manual] (Moscow, 1937).

⁷ N.E. Varfolomeev, 'Strategiya v Akademicheskoi Postanovke' [Strategy in an Academic Setting], V&R (1928), no. 11, pp. 78-98; V.K. Triandafillov, 'Vozmozhnaya Chislennost' Budushchikh Armii' [The Possible Size of Future Armies], V&R (1927), no. 3, pp. 14-43; A. Fedotov, 'Ispol'zovanie Sredstv Podavleniya v Proryve' [Employing Suppression Means in a Breakthrough], V&R (1932), no. 8-9, pp. 44-63.

books overlooks the operational level of war entirely and mentions only in passing the role of the former tsarist officers in the formulation of Soviet thinking in this area.⁸ Such works are all too often mere recapitulations of previous studies and rarely rise above the level of popular history. Many rely heavily on unsupported anecdotes and lack a solid documentary base, while most tend to stress the Red Army's technological development and give short shrift to the theoretical side. Other works by British and American authors are considerably higher in quality, although they too do not address the dissertation's central thesis and tend to focus on the technological-administrative development of the Red Army at the expense of theory.⁹ Neither do they dwell at any length on the position of the military specialists within the Red Army; nor do they attempt to link their activities with the development of post-Civil War operational thinking.

More pertinent to the thesis is a handful of older, as well as more recent, works dealing with the Red Army, which examine in laudable detail either the role of the military specialists or the theory of operational art.¹⁰ These are excellent and well-documented studies which contain a great deal of valuable information on both topics in isolation. However, in none of these works do the authors make an explicit attempt to examine the military specialist-operational art nexus. Moreover, nowhere do they concern themselves with pre-revolutionary operational theory or the part played by the future specialists in its formulation.

Before proceeding to an examination of the Soviet secondary-

⁸ E. Wollenberg, The Red Army, trans. C.W. Sykes (London, 1938); M. Garder, A History of the Soviet Army (London, 1966); E. O'Ballance, The Red Army (London, 1964); B.H. Liddell Hart, ed., The Soviet Army (London, 1956).

⁹ H.F. Scott and W.F. Scott, The Armed Forces of the USSR (Boulder, Colo., 1979); M. Mackintosh, Juggernaut. A History of the Soviet Armed Forces (New York, 1967).

¹⁰ D. Fedotoff White, The Growth of the Red Army (Princeton, 1944); F. Benvenuti, The Bolsheviks and the Red Army, trans. C. Woodall (Cambridge, 1988); D.M. Glantz, Soviet Military Operational Art. In Pursuit of Deep Battle (London, 1991); J. Erickson, The Soviet High Command. A Military-Political History, 1918-1941 (London, 1962).

source literature, a few words must be said regarding the veracity of the materials in question. As one historian aptly noted, the study of Soviet military history 'resembles an exercise in forensic pathology'.¹¹ The difficulty inherent in such research stems from the longstanding Russian-Soviet tradition of state interference in scholarly matters, with predictably deleterious consequences for the latter. This has often resulted in a situation in which history, in particular, has been employed as much to obfuscate as to illuminate. While this policy was by no means confined to the Soviet regime, the late system's far-reaching ideological pretensions exacerbated the situation immeasurably. The effects are particularly evident in much of the secondary-source literature since the end of the 1920s and have varied since then in accordance with the transient needs of the particular leadership group. Depending upon the period in question, political considerations have led to the glorification of the military roles of some (Lenin, Stalin, Voroshilov) and the denigration or historical 'disappearance' of others (Trotskii, Tukhachevskii, Svechin). Even the brief period of openness at the end of the 1950s and first part of the 1960s was motivated in part by N.S. Khrushchev's campaign to denigrate the late Joseph Stalin's role in Soviet history. The latest period of revelations, begun under M.S. Gorbachev, while highly uneven and sometimes given to sensationalism, has been far more objective and promises to be more long-lasting in its effects. Easily the most important development of the post-1985 period for the foreign researcher has been the greatly-increased, relatively speaking, access to the hitherto-forbidden Russian military archives.

As one might expect, the volume of literature in Russian devoted to the problem of the country's pre-revolutionary military legacy and operational art is much greater than in the West. However, many of these works suffer from the same shortcomings as regards the dissertation's central thesis, as explained above, although for

¹¹ J.D. Hartgrove, 'Chronicling Soviet Military History: The Major Works of John Erickson', Russian History/Histoire Russe, Spring (1985), p. 96.

different reasons. Whereas in the West much has been written out of ignorance, in the former Soviet Union, at least until quite recently, political constraints frequently hindered an objective examination of the country's military past.

Unfortunately, those Soviet works dealing with the former tsarist officers' practical and theoretical contribution to the Red Army are almost exclusively concerned with the period encompassing the Russian Civil War, 1918-22. This fixation, while somewhat understandable, necessarily fails to address the officers' role during the remaining years covered by the dissertation and constitutes a serious oversight in Soviet historical research. Among these works are several official histories of the Civil War.¹² However, their worth is often diminished by a politically-motivated tendency to dismiss or ignore the role of the former tsarist officers and a predilection for empty sloganeering. A much more valuable source for understanding the problem, and the Civil War in general, is the three-volume history of the conflict published at the end of the 1920s.¹³ This is a deeply military history of the war and is by far the best and most objective account from the Soviet side, and it contains numerous facts and interpretations which were omitted from later official histories.

Among other useful publications dealing with the Civil War are two collections of orders issued by the Soviet high command and the various front commands during these years.¹⁴ Both works are primarily documentary and refreshingly free of the usual political clichés.

¹² M.Gor'kii and others, eds., Istoriia Grazhdanskoi Voyny v SSSR [The History of the Civil War in the USSR] (Moscow, 1935-60); G.A. Belov and others, eds., Iz Istarii Grazhdanskoi Voyny v SSSR [From the History of the Civil War in the USSR] (Moscow, 1960-61); N.N. Azovtsev, ed. Grazhdanskaia Voina v SSSR [The Civil War in the USSR] (Moscow, 1980-86).

¹³ A.S. Bubnov, S.S. Kamenev and R.P. Eideman, eds., Grazhdanskaia Voina, 1918-1921 [The Civil War, 1918-1921] (Moscow, 1928-30).

¹⁴ G.A. Belov and others, eds., Direktivy Glavnogo Komandovaniia Krasnoi Armii (1917-1920) [Directives of the Red Army High Command (1917-1920)] (Moscow, 1969); N.N. Azovtsev and others, eds., Direktivy Komandovaniia Frontov Krasnoi Armii (1917-1922) [Directives of the Red Army's Front Commands (1917-1922)] (Moscow, 1971-78).

Together they convey an unintended but profound impression of the former tsarist officers' degree of involvement in day-to-day military affairs at the operational-strategic level.

There also exists a large number of more general works which touch upon the role played by the military specialists during these years. These generally focus on the Communist Party's efforts to recruit the former officers into the Red Army and to establish effective control over them. Others fleetingly treat the problem of the military specialists as part of the Soviet regime's larger effort to enlist the 'bourgeois intelligentsia' to its cause. Several of these works contain valuable details regarding the employment of the former tsarist officers and the controversy which this policy engendered in both the party and the army.¹⁵

Easily the most important work on the subject of the military specialists is A.G. Kavtaradze's study of their role in the Red Army during the Civil War.¹⁶ The author uses a wealth of archival and secondary literature to construct a detailed picture of the specialists' life in the army, including data on their social origins, methods of recruitment, their command and staff roles, and the problems and prejudices which they encountered in their work. Kavtaradze also provides a useful listing of those former officers who served in the Red Army's general staff apparatus or commanded armies. The book is also refreshingly free of much of the ideological boilerplate which mars so many Soviet histories of the period. On the other hand, the work is necessarily limited, from the point of view of the dissertation's thesis, due to its narrow focus on the

¹⁵ S.A. Fediukin, 'Ob Ispol'zovanii Voennykh Spetsialistov v Krasnoi Armii' [On the Employment of Military Specialists in the Red Army], V-IZh (1962), no. 6, pp. 33-44; V. Domnikov, 'Velikii Oktiabr' i Sozdanie Sovetskikh Voennykh Kadrov' [Great October and the Creation of Soviet Military Cadres], V-IZh (1967), no. 11, pp. 14-25; N.F. Kuz'min, 'Voennyi Vopros na VIII S"ezde Partii' [The Military Question at the VIII Party Congress], Voprosy Istorii KPSS [Questions of CPSU History] (1958), no. 6, pp. 174-88; S.A. Fediukin, Velikii Oktiabr' i Intelligentsiia [Great October and the Intelligentsia] (Moscow, 1972).

¹⁶ A.G. Kavtaradze, Voennye Spetsialisty na Sluzhbe Respubliki Sovetov, 1917-1920 gg. [Military Specialists on Service to the Soviet Republic, 1917-1920] (Moscow, 1988).

Civil War and its failure to examine problems of military theory.

The large body of Soviet literature devoted to the development of the operation and operational art is equally impressive, although the quantity of the work often exceeds its quality. The Soviets were among the most prolific publishers of military-historical and military-theoretical books and articles, and operational art was no exception. This is hardly surprising, as Soviet historians always made much of the Red Army's contribution to the development of operational theory. Since Stalin's death, a number of valuable works have appeared addressing these topics. Among these are several histories of military art, as well as more specific studies.¹⁷ Others deal with individual operations and operational developments of the Russo-Japanese War and World War I, with a minimum of political commentary.¹⁸

The Soviets have also produced a large body of work on the military operations of the Civil War.¹⁹ Unfortunately, while a number of works are highly detailed and offer a great many facts, the value of many others has been reduced by an overtly propagandistic

¹⁷ I. Marievskii, 'Stanovlenie i Razvitie Teorii Operativnogo Iskusstva' [The Birth and Development of the Theory of Operational Art], V-IZh (1962), no. 3, pp. 26-40; V.A. Semenov, Kratkii Oчерk Razvitiia Sovetskogo Operativnogo Iskusstva [A Short Essay on the Development of Soviet Operational Art] (Moscow, 1960); P.A. Rotmistrov, ed., Istoriia Voennoego Iskusstva [A History of Military Art] (Moscow, 1963); R. Savushkin, 'K Voprosu o Vozniknovenii i Razvitiia Operatsii' [On the Question of the Origin and Development of the Operation], V-IZh (1979), no. 5, pp. 78-82.

¹⁸ N.A. Levitskii, Russko-Iaponskaia Voina 1904-1905 gg. [The Russo-Japanese War, 1904-1905], 3rd ed. (Moscow, 1938); I.I. Rostunov, ed., Istoriia Russko-Iaponskoi Voyny, 1904-1905 gg. [A History of the Russo-Japanese War, 1904-1905] (Moscow, 1977); P.V. Cherkasov, ed., Mirovaia Voina, 1914-1918. 'Lutskii Proryv'. Trudy i Materialy k Operatsii Iugo-Zapadnogo Fronta v Mae-Iiune 1916 Goda [The World War, 1914-1918. 'The Lutsk Breakthrough'. Works and Materials on the Southwestern Front's Operation in May-June 1916] (Moscow, 1924); A.S. Beloi, Galitsiiskaia Bitva [The Battle of Galicia] (Moscow and Leningrad, 1929).

¹⁹ I.I. Kravchenko, 'Kharakternye Cherty Nastupatel'nykh Operatsii Krasnoi Armii v Grazhdanskoi Voine' [Characteristic Features of the Red Army's Offensive Operations in the Civil War], V-IZh (1976), no. 3, pp. 96-102; L.M. Spirin, Razgrom Armii Kolchaka [The Rout of Kolchak's Army] (Moscow, 1957); K.V. Agureev, Razgrom Belogvardeiskikh Voisk Denikina [The Rout of Denikin's White Guard Troops] (Moscow, 1961); N.E. Kakurin and V.A. Melikov, Voina s Belopoliakami [The War with the White Poles] (Moscow, 1925).

tone and read more like didactic novels than history.²⁰ This is also the period most affected by the Stalin cult, when the Civil War's history was distorted almost beyond recognition.²¹

More impressive is the amount and quality of work after 1953 covering the theoretical and technical developments of the interwar (1921-41) period. On the whole, much of the superior work is fairly free of ideological bluster and provides valuable insights into this extremely rich period.²²

However, in spite of all the impressive work that has been done in this area, only two recent works come even close to addressing the dissertation's thesis: I.A. Korotkov's A History of Soviet Military Thought, and P.A. Zhilin's The Birth and Development of Soviet Military Historiography, 1917-1941. The two works are unique in their efforts to more or less objectively discuss the role of the former tsarist officers in elaborating a specifically Soviet theory of war and operational art, although the latter subject's treatment is not as complete as one would like. Neither are the authors wholly free of a number of standard formulations and a somewhat condescending attitude towards the military specialists. On the other hand, Korotkov's discussion of the specialists' contribution to the doctrinal and strategic debates of the 1920s is generally fair, and

²⁰ I.V. Tiulenev, Sovetskaia Kavaleriia v Boiakh za Rodinu [Soviet Cavalry in Battles for the Motherland] (Moscow, 1957); S.M. Budennyi, Proidennyi Put' [The Road Travelled] (Moscow, 1958-73).

²¹ V.A. Melikov, Geroicheskaia Oborona Tsaritsyna (1918 g.) [The Heroic Defense of Tsaritsyn (1918)] (Moscow, 1938); V.A. Melikov, 'Lenin i Stalin-Organizatory Pobed Grazhdanskoi Voiny' [Lenin and Stalin-Organizers of the Civil War's Victories], V-IZh (1939), no. 5, pp. 6-47.

²² A. Golubev, 'Obrashchena li Byla v Proshloe Nasha Voennaia Teoriia v 20-e Gody?' [Was our Military Theory Focused on the Past in the '20s?], V-IZh (1965), no. 10, pp. 35-47; R.A. Savushkin, Razvitie Sovetskikh Vooruzhennykh Sil i Voennogo Iskusstva v Mezhuvoennyi Period (1921-1941 gg.) [The Development of the Soviet Armed Forces and Military Art During the Interwar Period (1921-1941)] (Moscow, 1989); F. Danilov and I. Kravchenko, 'U Istokov Sovetskoi Teorii Operativnogo Iskusstva (1921-1930 gg.)' [The Origin of the Soviet Theory of Operational Art (1921-1930)], V-IZh (1973), no. 11, pp. 38-45; S.A. Tiushkevich, ed., Sovetskie Vooruzhennye Sily. Istoriia Stroitel'stva [The Soviet Armed Forces. A History of Construction] (Moscow, 1978); R. Savushkin, 'K Voprosu o Zarozhdenii Teorii Posledovatel'nykh Operatsii (1921-1929 gg.)' [On the Problem of the Conception of the Theory of Consecutive Offensive Operations (1921-1929)], V-IZh (1983), no. 5, pp. 77-83.

Zhilin's section on the specialists' pre-revolutionary writings is particularly good.²³ It is indeed unfortunate that the limited size of the two works and their broad scope of inquiry do not allow the authors to examine these questions to any great depth.

The dissertation will also make use of a small number of secondary emigre sources in both English and Russian.²⁴ The value of these sources, however, is primarily limited to the pre-revolutionary and Civil War periods, and their usefulness declines sharply in discussing the post-1920 period. Also, while helpful, the worth of these sources, like that of their communist counterparts, is often impaired by their stridently polemical tone and a desire to settle old scores with their adversaries.

In short, in none of the studies cited above is the part played by the former tsarist officers in the development of Soviet operational art examined with anything approaching the necessary depth or thoroughness, and in the overwhelming majority of cases the attempt is not made at all. Only in the two Russian-language works previously mentioned is the subject even broached, and there insufficiently. In almost every case the role of the military specialists, when noted at all, is viewed almost exclusively in the context of their practical activity as Red Army commanders and administrators during the Civil War, while their pre-revolutionary (1904-17) and post-Civil War (1921-37) theoretical work in the field of operations is essentially ignored. Likewise, those works dealing with the theoretical development of operational art--almost all of them Soviet publications--only mention in passing the contribution of a few well-known former

²³ I.A. Korotkov, Istoriia Sovetskoi Voennoi Mysli [A History of Soviet Military Thought] (Moscow, 1980); P.A. Zhilin, ed., Zarozhdenie i Razvitie Sovetskoi Voennoi Istoriografii, 1917-1941 [The Birth and Development of Soviet Military Historiography, 1917-1941] (Moscow, 1985).

²⁴ A.A. Kersnovskii, Istoriia Russkoi Armii [A History of the Russian Army] (Belgrade, 1933-38); A. Zaitsov, 1918 God. Ocherki po Istorii Russkoi Grazhdanskoi Voyny [1918. Essays on the History of the Russian Civil War] (Paris, 1934); V. Rapoport and Yu. Alexeev, High Treason. Essays on the History of the Red Army, 1918-1938, ed. V. Treml, trans. B. Adams (Durham, North Carolina, 1985); A.I. Denikin, Ocherki Russkoi Smuty [Essays on the Russian Troubles] (Paris, 1921-22, Berlin, 1924-26).

officers, and even then often fail to identify them as such, as if reluctant to acknowledge the Red Army's debt to its imperial predecessor. Nowhere is a systematic attempt made to explore the connection between the two problems and to determine their proper relationship to one another. For these reasons, I believe, the dissertation has a valid claim to be an original contribution to the field of military history.

CHAPTER I

OPERATIONS AND OPERATIONAL THEORY OF THE LATE-IMPERIAL ERA, 1904-1917

A. Introduction

Modern operational art is directly linked to the rise of the operation as an independent sphere of military activity during the nineteenth century and its continued evolution into the twentieth. However, in order to understand the present state of affairs, it is necessary to go back to a time when there were neither operations nor operational art.

Strategy and tactics have existed since the beginning of organised conflict itself, with strategy determining the overall plan for prosecuting the war and delivering the armies and fleets to the battlefield, and tactics executing the plan by actually engaging the enemy. In the past, some of these tactical actions have led to the defeat of one side's forces in a single climactic battle. At other times, the tactical-strategic link has been less immediate, and it often took years of seasonal campaigning to bring about a final result. For much the greater part of military history, this two-tier arrangement sufficed. However, as in so many other areas, the Industrial Revolution ushered in enormous changes in the way men made war; changes which rendered the old formula increasingly obsolete.

The most startling of these was the vastly increased ability of the developed countries' economies to feed the material demands of war. The large-scale introduction of the factory system ensured that late nineteenth-century armies could be supplied with heretofore undreamed-of amounts and varieties of military equipment. The growing power and flexibility of this system made it possible not only to remake a nation's arsenal within a few years, but also to

increase output dramatically to meet the omnivorous demands of the large national armies which were beginning to appear. The crucial importance of these factors became apparent as early as the American Civil War of 1861-65, in which the North's substantially larger military-industrial base finally overwhelmed the Confederacy's primitive war economy, despite the advantage in traditional military virtues which the latter enjoyed. As any study of the conflict reveals, individual valor, while still important, had begun to yield pride of place to the cold, quantitative indices of national military production.

The Industrial Revolution also brought about important changes in the existing means of war, while producing a number of radical innovations as well. The most far-reaching of these were the enormous qualitative improvements in firearms and artillery. The large-scale introduction of rifled firearms after 1850 increased both their range and accuracy to deadly effect. This was followed by the introduction of breech-loading weapons, magazine rifles, and smokeless gunpowder, all of which dramatically increased the individual soldier's rate of fire and personal safety in holding defensive positions. Similar developments were also taking place in the artillery arm, where advances in fire control and range finding soon made the indirect laying of fire possible against enemy artillery and infantry positions. By the turn of the century, artillery ranges were being computed in the thousands of yards, considerably increasing the 'killing zone' through which an attacker would have to advance. These changes were highly advantageous to a defender who, fighting from trenches and fortified positions, could now engage an attacker from a greater distance and with a greater amount of fire and degree of accuracy than had ever been known before. Under these conditions an attacker was likely to be repulsed with horrendous losses, as happened to Union troops at Cold Harbor in 1864 and the Prussians at St. Privat in 1870.

The growing primacy of the defensive gradually forced the attacker to adapt his methods to the new reality. As advancing in

close column formation became increasingly suicidal, the less compact extended order came into being as the attacker sought to moderate the murderous effects of the new technology. As the likelihood of a successful frontal attack decreased, the commanders resorted more and more to trying to outflank the defender in order to turn his position. The efficacy of this maneuver was dramatically illustrated during the Franco-Prussian War during the fighting at Metz and Sedan, where two French armies were surrounded and forced to capitulate. The victorious German army came to make the turning movement the centrepiece of its military art after 1870, and by 1914 its scope had grown from the tactical to the strategic sphere, as embodied in the famous Schlieffen plan.

Technological breakthroughs in the means of communication during this period also played a major part in revolutionising the art of war among the industrialised states. The most prominent of these were the invention of the telegraph, telephone and wireless telegraph. These innovations greatly increased the control which a commander could exercise over the battle, even from a great distance. Now he could more effectively maneuver his scattered forces from a single location, as von Moltke had done. It also meant that a single commander could now control the actions not only of several corps, but of a number of armies as well, thus setting the stage for the appearance of the front, or army group, level of command. This impetus to centralized control also added greatly to the power and authority of the young general staff system.

The invention of the railroad was yet another factor which profoundly affected the conduct of war. With the spread of a rail net over much of Western Europe and the United States after 1850, military planners were quick to discover that large numbers of men and supplies could be swiftly transported over great distances in a fraction of the time required to cover the same ground on foot or by horse. As with the telegraph, the railroad's influence was first felt at the strategic level, in the American Civil War, where large-scale movements from one theatre of war to another were common. The

Prussians owed much of their success in their several wars of German unification (1864-71) to their mastery of the railroad and its possibilities for strategic deployment. The war plans of the major European powers after 1870 came to be built increasingly around precise mobilisation tables based upon the carrying capacity of the railroads.

Along with these myriad economic-technological changes came equally significant social ones, by far the most important of which was the appearance of the mass national army. Until the end of the 18th century most European armies were staffed by professional soldiers. These armies were relatively small, expensive to recruit and maintain, and even more expensive to lose. The caution and indecisiveness often displayed in European conflicts from 1648 to 1789 may be traced in part to the fear of losing such a large investment in a risky battle.

The French Revolution brutally swept this pleasant system aside. The modern national army was born in 1793 with the proclamation of the *levee en masse*, as France mobilized its adult male population to defend the republic against the invading armies of monarchist Europe. Although these drafts were often unwieldy on the battlefield and lacked the discipline of the old armies, Napoleon's military genius forged this explosion of nationalist enthusiasm into a formidable military weapon. Alone among the members of the anti-Napoleon coalition, Prussia adopted universal military service in 1813, and maintained it up to and beyond the unification of Germany in 1871. The success of this policy was so complete as to compel most of the major European powers to adopt some form of conscription soon after: Austria-Hungary in 1868, France in 1872, and Russia in 1874. Such measures ensured that by the turn of the century not only could most industrialised nations field a large army immediately upon the outbreak of war, but that the call-up of trained reservists and new recruits would raise the strength of the armies to several million men within a few weeks. What is more, these armies were now equipped and supported by the fabulously productive energies un-

leashed by the Industrial Revolution. And while modern armies demanded infinitely more in terms of materiel supply, the industrial capacity of post-1870 Western Europe allowed the belligerents a great deal of latitude in the allocation of human and productive resources.

It is therefore one of the ironies of history that despite the tremendous growth in the destructive power of modern armies, by the end of the nineteenth century the leading industrialised nations had actually become more resistant to a single 'knockout' blow by the enemy. The vastly increased human and productive resources at the disposal of the modern state had the cumulative effect of increasing its defensive 'depth' and making it nearly impervious to the kind of climactic warfare practiced by Napoleon. Now a state could suffer even a number of heavy reverses and, by drawing upon its vast internal resources, put together new armies to continue the struggle, as France succeeded in doing for a time following the disasters of Metz and Sedan. After 1870 the fact of the modern state's war potential was implicitly recognised in the growing emphasis placed upon the factor of time and the necessity for rapid mobilisation and attack in order to preempt the enemy's preparations.

In view of the augmented 'staying power' of the modern state and its military consequences, the European art of war was in serious need of revision by 1900. Prior to this time the strategic art of maneuvering one's forces to the decisive point for the grand battle of annihilation was deemed the pinnacle of generalship in the manner of Napoleon, and was the object towards which all commanders strived. Von Clausewitz, Napoleon's great interpreter, stated this succinctly in his On War: 'The major battle is therefore to be regarded as concentrated war, as the centre of gravity of the entire conflict or campaign'.¹ And while the commanders persisted in their search for the Napoleonic ideal, the passage of time rendered this approach increasingly at odds with reality.

Now the generals were discovering that heightened enemy resil-

¹ C. von Clausewitz, On War, ed. and trans. M. Howard and P. Paret (Princeton, New Jersey, 1984), p. 258.

ience had made an Austerlitz or Marengo all but impossible. Following a defeat, the enemy could slip away to regroup and replenish his forces, while the victor could rarely pursue effectively, given the effects of his own losses and the heightened defensive powers of modern weapons. Instead of a single battle deciding the war, one battle now served merely to set the stage for the next one, which might quickly follow on the heels of the previous one. This tendency for formerly separate battles to fuse together in time became apparent as early as the Wilderness fighting in Virginia in 1864. As one Union participant in these battles later remarked:

Usually in military operations, the opposing armies come together, fight a battle and separate again, the strain lasting only a few days.... But with these two armies it was different. From the 5th of May, 1864, to the 9th of April, 1865, they were in constant contact with rare intervals of brief comparative repose.²

This phenomenon was repeated in the fighting around Metz during the early stages of the Franco-Prussian War. Here, in the space of five days (14-18 August, 1870), the German armies fought the battles of Colombey and Nouilly, Vionville and Mars-la-Tour, Gravelotte and St. Privat. At these times, when the fighting was most intense, spreading out over several days, it became increasingly difficult to distinguish when one battle ended and another began. Often two or more major battles would rage simultaneously, as the single battlefield of old was gradually absorbed into the continuous melee of modern war.

Just as the formerly separate battles were merging in time, so were they also joining together in terms of space. This was due in part to the growing size of modern armies, which now had to spread out over great distances in order to deploy effectively and turn the enemy's flank, as well as to ward off similar attempts on the enemy's part. The battle was also growing in depth, as the increasing range

² A.A. Humphreys, The Virginia Campaign of '64 and '65. In The Army in the Civil War, subscription ed. (New York, 1885), XII. 118.

of modern weapons ensured that the fighting would begin at ever greater distances from the actual front line, as even the formerly inviolate rear areas became part of the battle zone. The spatial growth of the modern battlefield can be shown by comparing two important 19th-century battles. In 1812 the French and Russian armies met at Borodino along a front of six to eight kilometers, while in 1870 the Germans and the French fought the simultaneous battles of Gravelotte-St. Privat along a continuous front of some 20 kilometers in breadth.

However, even given the presence of modern communications technology, the enormous spatial growth of modern war after 1870 made it increasingly difficult for a single commander-in-chief to control all of his armies, which in the Russian case might be spread out along a front stretching hundreds of kilometers in length. The Russian high command sought to alleviate this problem by creating the front, or group of armies, to serve as an intermediate command link between the commander-in-chief and the individual army commanders. The front first appeared in the 1900 Russian war plan, which called for the creation of two fronts, directed at Germany and Austria-Hungary, respectively.

The single battle thus lost its former significance and spatial 'separateness' and became increasingly subsumed under what came to be known as the 'operation' (Russian, *operatsiia*), which later Soviet theoreticians have defined as the 'totality of various combat actions, conducted according to a single plan by operational major field forces on one or several services of the armed forces for achieving the assigned strategic or operational goal'.³ While ranking above the purely tactical battle in terms of goals and forces engaged, the operation remains subordinate to strategy, due to its inability to bring about a strategic decision through its own resources, which are only a portion of the state's entire armed forces. It is this very intermediacy which defines the modern operation and sets

³ Morozov, p. 189.

the stage for the elaboration of a theory of operational art.

Thus as opposed to the colorful spectacle of the past, war by 1904 had acquired a distinctly modern countenance. The necessary economic, technological and social requirements were now in place and had developed to such an extent that it lacked only a major war to illustrate just how far the operation had come.

B. The Russo-Japanese War

In northeast Asia the conflicting colonial ambitions of Russia and Japan finally came to a head in February 1904 with the surprise Japanese attack on the Russian Pacific Squadron anchored at Port Arthur. Although Admiral Togo's ships did not succeed in destroying the squadron as planned, they were able to bottle up the Russian vessels within the harbor for the remainder of the war. At one stroke, the Japanese were able to seize command of the sea, which was an absolute prerequisite for the next, continental phase of their strategy. They quickly followed up their success with a series of amphibious landings in Korea and southern Manchuria over the next few months. By May the Japanese had driven the small Russian covering force back and cut off the garrison at Port Arthur from the main Russian forces based on Mukden.

Japanese strategy in the war was driven by the need to score a quick and decisive victory over the small Russian contingent in Manchuria, before it could be reinforced from Europe. The Japanese armed forces, despite their impressive growth over the preceding 30 years, were still highly dependent upon foreign military imports, particularly naval, and the country's economic situation was such that it could ill afford to wage a lengthy war with its potentially far stronger adversary. The Japanese instead relied on surprise, speed and Russia's well-known internal weaknesses to bring them a quick and cheap victory.

The Russian problem was just the opposite. At the beginning of the war, the Russians had only about 98,000 troops in the Far East,

left over from their 1900 occupation of Manchuria during the Boxer Rebellion.⁴ This force depended almost entirely for its reinforcements and supply upon a single unfinished rail line stretching thousands of kilometers back to European Russia. Russian strategy, thus hampered by nearly insuperable logistical difficulties, was necessarily defensive during the war's early months and sought to avoid large encounters with the stronger Japanese forces until sufficient reinforcements arrived to enable them to take the offensive. While this strategy was undoubtedly correct for the first six months, the Russian effort was hobbled throughout by the senior generals' inability or unwillingness to adopt a more aggressive attitude, even after they had achieved a numerical superiority over the enemy. This stood in poor contrast to the Japanese approach, which invariably sought to carry the battle to the Russians, even in the face of superior numbers.

However, in spite of aggressive Japanese efforts to score a quick victory, the land war dragged on inconclusively throughout the spring and summer of 1904. Following the investment of Port Arthur, the Japanese, under the overall command of Marshal I. Oyama, moved north to meet Gen. A.N. Kuropatkin's Manchurian Army, guarding the approaches to Mukden. The first major clash occurred at Liao-Yang (24 August-3 September), during which the Japanese managed to dislodge the Russians from their positions through a skillful combination of frontal assault and flank attacks. The battle accomplished little except to cause casualties estimated at 15,890 Russians and 17,539 Japanese. It was otherwise indecisive, except for the negative impression it left in the minds of the Russian command, as well as the common soldier.⁵ The Japanese did not follow up very smartly upon their victory, and the Russians were able to withdraw unmolested to the north. During the next four weeks the two armies eyed each

⁴ Levitskii, p. 65

⁵ V.A. Apushkin, Russko-Iaponskaia Voina, 1904-1905 [The Russo-Japanese War, 1904-1905] (Moscow, 1910), p. 133.

other warily across a 40-kilometer no-man's land and gathered their forces for the next battle.

Kuropatkin, under pressure from St. Petersburg to relieve Port Arthur, resolved to attack the Japanese before they could recover fully from the Liao-Yang fighting. The moment was certainly favourable, as the Russians had recently been reinforced and now numbered some 210,000 men and 758 guns against a Japanese force of only 170,000 and 648 guns, along a 60-kilometer front.⁶ The Russian commander, to facilitate control of this large force, divided his army into several detachments, each of which was the equivalent of a small army. This made Kuropatkin, in effect, the first front commander in everything but name.

Kuropatkin's plan called for the 'Eastern Detachment' (two infantry corps and a cavalry division) to move south across the Sha-ho River in order to turn the weakly-held Japanese right flank and force Oyama back upon Liao-Yang. At the opposite end of the Russian front, a 'Western Detachment' (two infantry corps and a cavalry division) would attack due south to pin down the Japanese forces and prevent them from switching troops against the main effort. A force of two infantry corps occupied the interval between the detachments, echeloned slightly to the rear, while another two corps formed the army reserve, with one corps behind each wing.

The Russian plan contained a number of faults, the most serious of which was the even distribution of force along the front, which effectively precluded a decisive attack on any one sector. Kuropatkin exacerbated these faulty initial dispositions by tying the pace of the general advance to that of the left flank, thus making the entire attack hostage to the ostensible main effort, which was so understrength as to be doomed from the start. This egregious dispersal of force coincided exactly with the plan's lack of a clear and decisive objective, and foresaw nothing more ambitious than the gaining of ground on the Japanese right, a move which neither threat-

⁶ Levitskii, pp. 167, 169.

ened the enemy nor held out any promise of relief to Port Arthur. Also, whereas an attack on the Japanese left would have taken the Russians across relatively level ground, by attacking the enemy right, the Eastern Detachment would be forced to advance over mountainous terrain in which large-scale movement would be limited to a few narrow and easily-defended passes. In retrospect, it is obvious that a determined and well-supported attack against the Japanese left would have been far more effective, forcing the Japanese to fight where they stood or fall back.

The Russian offensive began on 4 October on the left flank, followed a day later by the Western Detachment on the right. Given the distance between the two armies, the Russians encountered little initial resistance, although they advanced none the less slowly for that. The Russians reached the Sha-ho on 6 October and immediately and inexplicably dug in upon encountering the brigade-sized Japanese screen, although the enemy's main body was still some distance away. Here the superior Russian forces began to lap around the Japanese position, although the Eastern Detachment's commander, Gen.-Lt. G.K. Shtakel'berg, did not venture to attack, even when a serious assault would have easily routed the defenders. The Russian general even gave his troops a day's rest on the 7th, and was no more aggressive the next day, which enabled the Japanese to withdraw southwest to a stronger and less-exposed position. The Russians followed slowly and finally closed to the Japanese line along the upper Tai-tzu, but the element of surprise which their unexpected offensive had afforded them was now lost. The Western Detachment, its movements dictated by the progress of the 'main attack', advanced in an equally dilatory manner, and the Russians' progress slowed to a crawl. And although they would continue to attack fitfully, the overall initiative at this point passed to the Japanese.

Gen. Kuroki, commanding the Japanese First Army on the right, reacted swiftly to Shtakel'berg's threat and dispatched a division to the threatened sector to shore up his position along the mountain passes. However, the Japanese were not content to merely blunt the

Russian attack, and instead of allowing his actions to be dictated by the enemy, Oyama made the prompt and soldierly decision on 9 October to carry the battle to the enemy. The Japanese commander's plan called for his Second and Fourth armies, and Kuroki's left wing, to close to the Russian positions along the Shi-li-ho and pin the enemy along this line, while at the same time trying to turn the Russian right on the western bank of the Sha-ho. In fact, the first frontal collisions had taken place that very day south of the Shi-li-ho.

The Japanese attacks continued throughout the morning and afternoon of the 10th and the Russians slowly began to give ground, although they retired in good order. Kuropatkin made no attempt to alleviate the pressure on his right by reinforcing the Western Detachment, or by prodding the Eastern Detachment into action. The latter group limited itself to ineffectual cavalry probing and a number of unsuccessful attempts to dislodge the Japanese from the mountain passes. However, these were unsuccessful and Shtakel'berg began to withdraw his forces to the north and construct defensive positions. Thus ended the heralded Russian offensive, which had been brought down by a combination of bad planning and the lethargy and timidity of the command echelon.

The Japanese offensive was resumed with vigor on the morning of the 11th. Oyama had decided to give up his attempt to turn the Russian flank, due to a shortage of forces, and the Japanese shifted their attacks to the centre of the line, where repeated assaults gradually wore the defenders down. The pressure here and further east finally compelled the Russians to pull back their forces in the centre towards the Sha-ho, a move which exposed the flank of the Western Detachment, forcing it to fall back as well. Unfortunately for the Russians, Kuropatkin's notion of command and his disjointed view of the battlefield meant that there was no attempt to relieve the pressure on this wing in spite of the Russians' overall numerical superiority.

The fighting began to die down over the next few days, as the Japanese, by now exhausted, were content to let the Russians with-

draw. Only in the centre were the attacks launched with any energy, causing the Russians here to fall back behind the Sha-ho, where they had already begun fortifying the northern bank. Kuropatkin attempted a half-hearted counterattack west of the Sha-ho on the 14th with an infantry corps, which had up until now been idle. However, this attempt quickly faltered as a result of the Russians' usual inability to coordinate their efforts, and the fighting gradually began to peter out due to mutual exhaustion. There followed a final, brief burst of fighting along the Russian bridgehead south of the Sha-ho, which the defenders managed to hold in the face of furious Japanese infantry assaults. Both armies then settled down into a prolonged period of positional warfare known as the 'Sha-ho sitting', which lasted, with minor breaks, for four months. Thus the operation's end found the Russians back at their starting point, although considerably the worse for wear in terms of casualties, and especially in morale. According to one source, the Russians lost 46,330 men, compared to Japanese casualties of 15,879, although the latter figure is probably too low by a good deal.⁷

To the military historian, the battle is further evidence of the operation's spatial and temporal evolution and the further development of the art of conducting operations. For it is to the October fighting that the distinction of having produced the first modern operation belongs. For two weeks, forces totalling nearly 400,000 men were engaged in nearly-continuous fighting along a more or less solid front some 90 kilometers in breadth and 20 in depth. The unprecedented appearance of these indices in a single battle caused a later Soviet-era theoretician to remark on the 'amazing imprint of modernity' which 'lies upon the operation along the Sha-ho River'.⁸

By February 1905 both sides had sufficiently recovered from the

⁷ V.A. Cheremisov, Russko-Iaponskaia Voina, 1904-1905 Goda [The Russo-Japanese War, 1904-1905], 2nd ed. (St. Petersburg, 1909), p. 163.

⁸ A.A. Svechin, Evoliutsiia Voennogo Iskusstva [The Evolution of Military Art] (Moscow and Leningrad, 1928), II. 508.

October fighting to contemplate renewed offensive activity. The Japanese, numbering 270,000 men and 926 guns, were spread along a 110-kilometer front, while the Russians, who lived in deadly fear of the enemy's turning movements, were even more extended, occupying a 150-kilometer front with 315,000 men and 1,219 guns, which effectively negated their numerical superiority.⁹ The Russian position was further echeloned to a depth of 85 kilometers, and consisted of three defensive positions, of which only the first was occupied. Kuropatkin, despite his failure of the previous autumn, remained in overall command of a force now divided into three armies. At the same time, he was also commander-in-chief of all Russian forces in the Far East, which included both land and naval forces. This was an organisational expedient to which the Soviets would resort to in 1945, with considerably more success.

The tsar had been pressing Kuropatkin to launch a decisive offensive against the Japanese, so as to extricate Russia from a war which was becoming increasingly unpopular at home. The latter dutifully responded with a plan, which even by the standards of late-imperial thinking, was striking in its lack of imagination. The plan's most glaring fault was that Kuropatkin once again utterly failed to pursue a decisive goal, either by means of battle, or by maneuvering against the Japanese communications in anything approaching a forceful manner. Instead, Kuropatkin planned to make his main attack with Gen. A.V. Kaulbars's Second Army between the Hun-ho and the Sha-ho, with the vague notion of threatening the enemy's left flank and forcing him back on Liao-Yang. If this effort was successful, Gen.-Lt. A.A. Bil'derling's Third and Gen. N.P. Linevich's First armies would support the attack by moving south against the Japanese centre and right.

Kuropatkin's latest plan was again flawed in its very conception by its failure to employ the Russians' numerical superiority to any end other than the geographical objective of reaching the Tai-tzu

⁹ Levitskii, pp. 238-40.

River, in what was little more than a massive frontal attack. If Kuroptakin at least planned this time to attack across the more favorable terrain west of the Sha-ho, he still had not learned the wisdom of concentrating his forces for a decisive blow. Only a fraction of his force was assigned to take part in the main offensive, with the rest slated for supporting roles or held in the army's more than ample reserve. Kuropatkin further reduced his chances by clinging to his practice of tying the supporting units' advance to the success, or lack thereof, of the main effort, thereby rendering the entire offensive dependent upon the enemy's defensive prowess along a particular sector, and in practice relegating the greater part of his army to the role of passive bystander. Finally, given his heavy investment in the above-named defensive positions, there is reason to doubt Kuropatkin's commitment to any offensive action. In any event, he saw no reason to hurry his preparations, and scheduled the offensive to begin on 25 February.

The Japanese were also making offensive plans, but of an entirely different kind from the half-hearted Russian efforts. Marshal Oyama's plan called for nothing less than the destruction of the entire Russian force in a single operation. He particularly sought to take advantage of the Russians' extended deployment, in which most of their forces were spread out in a single line, which made mutual support difficult and encouraged turning movements by an attacker. According to Oyama's plan, Gen. Kawamura's Fifth Army was to attack the Russian outposts in the mountainous area north of the Tai-tzu and move northwest in conjunction with Kuroki's army to hit the Russian First Army's left flank. This attack, aside from having the objective of turning the Russian left, was also given the task of drawing away Russian reserves from the Japanese left wing, where Oyama planned to deliver his main attack. Here, Gen. Nogi's Third Army, recently arrived from the successful siege of Port Arthur, was to swing around the Russians, right to turn their flank west of the Hun-ho and to cut Kuropatkin's communications north of Mukden, and link up with Kawamura to encircle the defenders. The attack would be

supported by the Japanese Second and Fourth armies, which would launch simultaneous frontal attacks against the Russian positions along and to the west of the Sha-ho, to prevent Kuropatkin from switching forces to either flank.

The contrast between the two plans could hardly be more striking. Whereas Kuropatkin, with an overall superiority in men and materiel, frittered away this advantage by allocating his forces evenly along the front, Oyama consolidated his smaller force into two strike groups and a ready reserve. Moreover, Oyama would be attacking with all his forces simultaneously, in pursuit of a single, clearly-defined goal, while the Russian efforts would be fitful and uncoordinated, aiming at amorphous geographical goals instead of the enemy army. If there was a flaw in the Japanese plan, it was that it was probably too ambitious for the forces at Oyama's disposal. One can easily detect in the Japanese commander's design his personal experience at Sedan in 1870 and the strong influence of German military ideas in Japan at this time.¹⁰

The Japanese were first off the mark with a night attack by units of Kawamura's army against the Russian left on 18 February. The attack made little initial progress due to stout resistance and the hilly terrain, which restricted the attackers' room for maneuver. Gradually, however, the weight of numbers began to tell and the Russians fell back in the face of a Japanese turning movement on either side of their position. Kuroki's right wing applied additional pressure, beginning on 24 February, by moving against Linevich along the upper Sha-ho. But the Russians retreated skillfully, and although the Japanese persisted in their efforts to turn their flank, they could make little headway. However, they were quite successful in achieving their other goal of drawing the defenders' attention from the decisive front. The Japanese attacks so alarmed Kuropatkin that he ordered Second Army's reserve and his own general reserve of two infantry corps, eastward to counter the threat. Kaulbars there-

¹⁰ *Ibid*, p. 240; M.Carver, Twentieth Century Warriors (London, 1987), pp. 333, 336-38.

upon decided to cancel Second Army's 'main effort', a move to which Kuropatkin readily acceded. The ruse had worked perfectly and the Russian command was not only fooled into weakening its forces in the area of the forthcoming main attack, but had completely surrendered the initiative to the enemy as well.

On 27 February Nogi began his move around the Russian right. His 3 1/2 divisions quickly wheeled to the northwest, screened by a cavalry brigade on the Ta-liao River's west bank. That same day, Second Army began its attack to divert the Russians' attention from the envelopment being prepared against them. The Japanese turning movement caught the Russians completely by surprise, even though they had long been aware of Nogi's presence. In fact, so ineffective was the Russian cavalry west of the Hun-ho that Kaulbars was not even made aware of the enemy's move until the next day, by which time the Japanese were well around the Russian flank.

Kuropatkin's response to this developing threat was to dispatch a brigade to cover his communications north of Mukden; the first in a series of half-measures which came to exemplify his conduct of operations. At this point the commander-in-chief still saw the main danger on his left wing, where the Japanese had resumed their attacks on 1 March. Had an energetic counterattack been made at this point, using all available forces, the Japanese might well have been thrown back against the Tai-tzu and Nogi's attack disrupted altogether. However, such decisive actions were foreign to Kuropatkin's nature, and he proceeded to compound his previous error by ordering one of his infantry corps back to Mukden, where it would be of no immediate use to either wing. Kuropatkin's perverse refusal to seize his opportunities and his desire to be secure everywhere ended the best hope the Russians had of defeating the Japanese offensive.

In contrast to the confused Russian response, Nogi pressed on with his turning movement, meeting as yet only sporadic opposition. Kaulbars remained only dimly aware of the threat to his right, although the situation was growing more serious by the hour. Second and Fourth Japanese armies, meanwhile, persisted in their unsuccess-

ful efforts further to the east. Kuropatkin's response to this concerted effort was to hurriedly reinforce and extend his right flank by creating small scratch units of strictly tactical significance, in order to keep pace with Nogi's left wing and deflect it from the rail artery at Mukden. As the battle developed, this 'system' of reinforcing the Russian right wing gradually bled Third and First armies of men and equipment, while Second Army never received the decisive infusion of strength which would have enabled it to turn on the Japanese in strength.

The Russians seemed to recover somewhat during the first few days of March and began striking back in several places along their lengthening right flank. However, these attacks were poorly coordinated and usually not pressed very hard. The Japanese were only slightly inconvenienced by these moves and continued to press the enemy all along the front. Oyama continued to reinforce Nogi from his general reserve, and the latter castled his divisions northward as the line gradually snaked beyond Mukden. Elsewhere, Second Army maintained the pressure on the Russians still south of the Hun-ho, while First and Fifth armies continued to harry Linevich. However, as before, the Japanese could make little headway here, although their attacks continued to pin down large numbers of enemy troops.

Both sides traded attacks throughout the 5th, 6th and 7th, although the Japanese generally got the better of the fighting. The Russians kept searching for the Japanese left flank, but failed to find it, and as a consequence, most of their attacks became costly frontal assaults which did little to deter the Japanese from their objective. Nogi was now closing in on the railway north of Mukden, and Japanese cavalry was even able to raid the outposts defending this artery and destroy sections of the line. Kuropatkin, by scraping together his last reserves, was able to organise one last blocking group west of the railroad. However, although this latest scratch group was temporarily able to stave off the threat to the Russian communications, it was far from being a force capable of pushing back the Japanese. The bankruptcy of Kuropatkin's policy was

now revealed. By failing to use First and Third armies for anything more than a general reserve for his right wing, the Russian commander surrendered the initiative along his centre and left to the enemy. The Japanese, in turn, ceaselessly pressed the Russians south of the Hun-ho, threatening a breakthrough and preventing Kuropatkin from shifting more forces to his right. By the end of the first week in March, Kuropatkin could no longer maintain this balancing act, while the Japanese, with fewer troops, continued to attack everywhere.

The Russian commander was thus faced with the necessity of shortening his front south of the Hun-ho by pulling back First and Third armies behind the river in order to build up a sufficient blocking force west of Mukden. An order to this effect went out on the 7th, and the two armies began to pull back later that evening. The Japanese followed none too aggressively, and by the morning of the 8th the Russians were ensconced in their new positions along the north bank of the Hun-ho. On that day Gen. Oku's Second Army moved its last division north of the river, so that the full weight of two Japanese armies was now brought to bear against the beleaguered Russian right. With the closing of the Fourth, First and Fifth armies to the Hun-ho, the Russian front came to form a very narrow and dangerous corridor with its apex southwest of Mukden and the Japanese nibbling at its flanks. The Russian position was plainly untenable, although when disaster struck it was from a wholly unexpected quarter.

Due to poor staff work and the confusion caused by the hurried retreat, the troops who fell back behind the Hun-ho sometimes occupied their unfinished positions in a haphazard fashion. Kuroki's forces struck one of these weak points and the Japanese flowed into the breach and into the Russian rear, hardly hindered by the demoralized defenders, who, in the absence of centralized control, could offer little in the way of resistance. By nightfall Kuroki's army had wheeled to the northwest and was within a few hours of the Mandarin Road north of Mukden. The Russian army now faced the very real threat of encirclement.

Fortunately for the Russians, Kuropatkin had by this time already admitted defeat and had decided to pull the entire army back to Tieh-ling before he was even aware of the magnitude of the Japanese breakthrough. The Russians began their retreat on the evening of 9 March through the 11-kilometer corridor along the railroad leading out of Mukden. The most difficult task fell to the lot of Third Army, which had the greatest distance to travel, over roads clogged with men and supply wagons, and periodically shelled from both flanks. In these desperate hours a number of Russian units performed heroically and managed to keep the Japanese at bay just long enough for the main body to get away. By the evening of the 10th the greater part of the Third Army had escaped, followed closely by Second Army. First Army, which was effectively cut off from its neighbors, took a more easterly route and also managed to elude its pursuers. On the morning of 11 March units of the Japanese Third and First armies finally linked up north of Mukden, although the greater part of the Russian army had escaped.

The Russians did not linger long at their Tieh-ling positions, but continued their retreat northward only half-heartedly pursued by the Japanese, who were in any case in no condition to engage the enemy after two weeks of continuous fighting. By 30 March the Russians had reached their final defensive position at Ssu-ping-chieh. Linevich replaced Kuropatkin and the Russian army was reinforced to a strength of 446,500 men to 337,500 Japanese, but the dispirited Russians undertook no more offensive operations.¹¹ The Japanese, for their part, had reached the limits of their resources and were content merely to observe their foes and allow the revolutionary situation in Russia to take its course. The latter's final defeat came at the naval disaster at Tsushima (27-28 May, 1905), and peace negotiations began soon afterwards. The Treaty of Portsmouth ended the war on 5 September, 1905.

The Battle of Mukden was the war's largest land battle and the

¹¹ Levitskii, p. 292.

greatest single clash of arms before 1914. In it the Russians lost some 89,000 men, of whom 30,000 were prisoners, against Japanese losses of approximately 70,000.¹² In operational terms the fighting here and along the Sha-ho represents a continuation and significant expansion of the trends already mentioned, particularly as to the increase in the size of the armies engaged and the spatial growth of the battlefield. There is every reason to believe that had the two sides elected to fight along the Ssu-p'ing-chieh position these figures would have grown even further. The operation had come a long way since its infant beginnings during the previous century, and in Manchuria the ghastly contours of 1914-18 were already visible.

C. Reform and Recovery

'We did not know modern war', was one observer's verdict on the Russian army's failure in the Far East.¹³ Indeed, of the major European powers, the Russians had probably been the least successful in adapting to the late-nineteenth century revolution in military affairs. However, a defeat may also have the positive effect of forcing a nation's political-military establishment to reexamine its fundamental beliefs in order to avoid a repetition of the mistakes which led to disaster. This was partly the case with Russia, whose humiliation in the war with Japan had led not only to domestic unrest and far-reaching political changes, but had resulted in a measure of reform within the chastened army as well. The intense soul-searching occasioned by the army's poor showing against the despised Japanese prompted several gifted thinkers to ponder the implications of recent military developments and attempt to draw lessons for the future. These studies, carried out in the decade preceding the outbreak of war in 1914, resulted in a number of interesting and influential conclusions as to the nature of modern war and, in particular, the

¹² Ibid, p. 286.

¹³ Neznamov, V.

nascent field of operations.

Needless to say, the term 'operational art' was not in use at this time and would only gain widespread currency under the successor Red Army some 20 years hence.¹⁴ Nor would it be correct to assume that the rich vein of operational thought which emerged between 1905 and 1914 is entirely original to these years. In fact, many of the ideas which agitated Russian military thinkers during this time had their genesis in the decades preceding the turn of the century. By far the most outstanding thinker during the pre-1904 period was the military theorist and philosopher Genrikh Antonovich Leer (1829-1904). Leer was the author of several detailed works on strategy and other subjects, and from 1889 until 1898 was the chief of the General Staff Academy, from which advantageous position he was able to shape the thinking of many of the country's best officers. In Leer we find one of the earliest Russian attempts at the systematic study of operations and an effort to incorporate this phenomenon into the existing fields of strategy and tactics. Appropriately enough, his major work on the subject was entitled Strategy (The Tactics of the Theatre of Military Activities), which first appeared in 1869 and which was reissued regularly over the next 30 years.

As the title suggests, there was as yet no place for an independent field of operations in Leer's system; nor did the author put forth a working definition of the operation, although considerations of this sort occupy a prominent place in the book. Rather, the operation was subsumed under the rubric of strategy, which Leer divided into two parts, the ideal and the practical. The first, or strategy in the 'broad sense', deals with what he called the 'philosophy of military affairs', and constitutes a holistic understanding of the phenomenon of war. The second, or 'strategy in the narrow sense', is more concrete and corresponds closely to the spatial parameters of modern operational art. Leer termed this sphere the 'tactics of the theatre of military activities', which he identified

¹⁴ A.A. Samoilo, Dve Zhizni [Two Lives] (Moscow, 1958), p. 58.

with the 'higher tactics' of Napoleon. This, in turn, was distinguished from what Leer called the 'tactics of the battlefield', which is similar to the modern understanding of tactics, which is also geographically much more limited in scope and restricted to the immediate task of engaging the enemy.¹⁵

Of equal importance with the delineation of these separate spheres of activity was their hierarchical relationship to one another in theory. Thus the operation is subordinate to Leer's notion of applied strategy by virtue of the former's physical identification with the theatre of military activities (the theater of military activities), while it is by inference superior to the 'tactics of the battlefield', and is in fact made up of 'a series of local actions, maneuvers and local battles'.¹⁶ In practice, strategy devises the operational plan, deploys, supplies, maneuvers and provides for the security of the army in the given theatre of military activities, while the issue is ultimately decided by a series of purely tactical actions, i.e., battles.¹⁷

In spite of what is by current standards a confusing terminological overlap, it is clear that Leer had recognized the operation as a separate entity, in much the same way as battles and engagements were seen as subdivisions of the larger phenomenon of war. As a separate theory, however, the sphere of operations was as yet far from achieving full independence from the more established fields of strategy and tactics. Rather, they--in particular, strategy--tended to encroach upon operations and to lend their terminology to the latter almost to the point of masking its distinctive features. Nevertheless, the distinctions which Leer did make indicate that the art of conducting operations was beginning to separate itself from its elder brothers. The seeds of future operational autonomy had

¹⁵ G.A. Leer, Strategiia (Taktika Teatra Voennykh Deistvii) [Strategy (The Tactics of the Theater of Military Activities)], 4th ed. (St. Petersburg, 1885-87), I.1.

¹⁶ Ibid, I. 10.

¹⁷ Ibid, pp. 6-10.

been planted, although it would be left to another army to complete the process.

Of particular significance for the future development of operational art were Leer's thoughts on the nature of the theatre of military activities (*teatr voennykh deistvii*) and the organisation of the masses of men and materiel which would occupy it. The author, in the 1898 edition of *Strategy*, defined for the first time the theatre of military activities as 'the space in which one or two armies operate, having one and the same objective'. The theatre of war (*teatr voyny*), on the other hand, is 'the entire space in which the war is waged', and may consist of several theatres of military activities.¹⁸ More than ten years earlier, Leer had speculated that a theatre of military activities might contain as many as five armies, numbering up to a million men. Depending upon a variety of geographical and political factors, these units might be further organised into what Leer called 'groups of separate armies' (*gruppy chastnykh armii*), each of which would be responsible for a separate theatre of military activities.¹⁹

This huge and unwieldy mass would inevitably present enormous control problems which could no longer be resolved using previous methods of direct field command, even given the remarkable advances in communications means during the previous half-century. Leer's solution was the post of commander-in-chief (*glavnokomanduiushchii*), each of which would be responsible for a group of armies.²⁰ However, the name belies the weak powers actually accorded the position, as Leer preferred a distinctly 'hands off' approach to command at this level more reminiscent of the elder Moltke's practice in 1870. According to Leer, the commander-in-chief would be strictly limited in his ability to interfere in the activities of his individual army

¹⁸ G.A. Leer, *Strategiia (Taktika Teatra Voennykh Deistvii)* [Strategy (The Tactics of the Theater of Military Activities)], 6th ed. (St. Petersburg, 1898), I. 4.

¹⁹ Leer, *Strategiia*, 4th ed., II. 13-14.

²⁰ *Ibid*, p. 21.

commanders, and would be restricted to informing the latter of the operation's 'general idea' and the overall situation in the theatre of military activities.²¹

Leer's ruminations on the need to combine the heretofore independent armies into larger groups of armies, operating towards a common goal in a single theatre of military activities was, in retrospect, a seminal event in the development of Russian operational thought. Here, in a rudimentary form, was the theoretical justification for organising what would later become known as the front, an operational-level command instance lying midway between the supreme command and the individual field armies. Leer's recommendations became a reality in 1900, with the division of the western theatre of war into two theaters of military activities, each manned by a single front, directed, respectively, against Germany and Austria-Hungary. The imperial army, in the years remaining to it, would further develop Leer's ideas on this score, and the notion of the front would quickly become one of the major tenets of the Red Army's operational heritage after 1917.

While Leer's work was certainly incomplete by current standards, his efforts were nevertheless advanced for his time and would continue to serve as a valuable reference point for succeeding theorists. Long regarded as the army's leading theoretician, Leer's influence was felt particularly at the General Staff Academy, even after his departure in 1898. To judge from later sources, a number of Leer's ideas had already been introduced into the students' course of study at the end of the century, notably the author's notions of the theatre of military activities and the necessity for creating groups of armies.²²

Among the later theorists were the academy graduates A.V. Gerua and E.E. Messner, who are credited with coining the term 'operatics'

²¹ Ibid, p. 21.

²² P.I. Izmet'shev and E.E. Messner, comps., Konspekt Strategii [A Strategic Abstract] (St. Petersburg, 1899), pp. 12, 53-54.

(operatika). One observer of the period's theoretical controversies later wrote that, according to this scheme, strategy is the waging of war in its entirety, while operatics is the conduct of the battle at the army level, and tactics is the waging of combat from the corps level down.²³ This early division of military art into strategy, operatics and tactics is of decisive importance to the development of later operational thought, helping to further the liberation of the realm of operations from the two older disciplines. This theoretical (the hierarchical arrangement of the three fields) and organisational (the division of tasks according to the type of units engaged) division is one of the earliest pieces of evidence pointing to a link between pre-revolutionary and Soviet operational thought. From this formula it was but a short step to the later Soviet division of military art into strategy, operational art and tactics.

This is not to suggest that there existed anything like unanimity on this and other matters in the army in the wake of the Manchurian debacle. On the contrary, the Russian army during the interwar period was continually riven by any number of theoretical, practical and personal controversies. One chronicler of the time saw the army as being divided into three antagonistic camps. The first group, according to this view, consisted of those senior officers who completely failed to understand the lessons of the recent war and the need for reform within the army. The leading members of this clique included war minister V.A. Sukhomlinov (1909-15), and chief of staff Ia.G. Zhilinskii (1911-14), among others.²⁴ As a group, these men represented most clearly the official views of the court and the military bureaucracy. And while they were not wholly indifferent to the idea of reform, their innate conservatism and lack of resolve in implementing even the most inoffensive changes certainly retarded the army's development into a truly modern force.

²³ A.A. Kersnovskii, Filosofia Voyny [The Philosophy of War] (Belgrade, 1939), pp. 31-32.

²⁴ Kersnovskii, Istoriia, III. 608.

By far the most interesting of these groups was the so-called 'Young Turks', whose writings and educational efforts did so much to revitalize Russian military thinking during these years. Intellectually, this group stood head and shoulders above its stultified opponents in the war ministry, although its academic virtues did not save it from defeat by the obscurantists' bureaucratic intrigues. These intelligent proponents of reform included D.G. Shcherbachev, chief of the General Staff Academy from 1907 to 1912, and the military intellectuals N.N. Golovin and A.A. Svechin.²⁵ The latter would eventually become one of the Red Army's leading and most controversial military theorists in the 1920s.

Finally, a third and much less influential camp consisted of those who tended towards a romanticized view of Russian military history. Headed by A.Z. Myshlaevskii and A.K. Baiov, this group's practical recommendations were few, and its existence was due more to a deep-seated reaction against western influences and a vague search for a native military method.²⁶ In spite of its weak theoretical base, this faction's strongly nationalistic appeal made it potentially the most powerful of the contending groups. Ironically, the nationalist school was to enjoy its greatest success under the ostensibly 'internationalist' Soviet regime, particularly following World War II, which assiduously promoted the idea of a distinctly Russian-Soviet military tradition.

Much of the intellectual ferment during the interwar decade took place in the General Staff Academy, which served briefly as the reformers' base for disseminating their ideas within the army through successive classes of young, would-be staff officers. The reformers managed to get the upper hand during the period of recrimination which followed the Russo-Japanese War, when the army establishment and its methods stood in temporary disgrace. The academy itself was certainly in need of reformation and had been heavily criticized for

²⁵ Ibid, p. 608.

²⁶ Ibid, p. 609.

failing to prepare its students to meet the demands of modern warfare. Indeed, the quality and relevance of the instruction in many areas left much to be desired, even under the reformist administration. For example, a preoccupation with abstractions at the expense of practical knowledge was a chronic problem in the academy's program for several years.²⁷ One student who would later enjoy a brilliant career in the Red Army, B.M. Shaposhnikov, later complained of his student years that despite the outward signs of reform, the academy still 'prepared more of a theoretician than a practitioner for service on troop staffs'.²⁸

Whatever its shortcomings, the interwar academy did attempt to impart to its students some idea of modern war, and offered what one former officer called a 'well-founded knowledge' in tactics, operations and strategy.²⁹ However, the academy's approach to the field of operations was often hobbled by the same terminological muddle which had characterized Leer's writings on the subject and which would continue to plague his successors. For example, the academy's leading authority on operations, Col. A.A. Neznamov, was during these years a professor of strategy, ample proof of the operation's continuing absorption by the latter discipline. This duality was reflected in the colonel's lectures, in which his teaching of operations was 'not exactly grand tactics as defined by Napoleon, and not exactly the strategy of the theatre of military activities according to Leer'.³⁰ Likewise, one instructor referred to his teaching duties in the realm of operations as lecturing on the 'higher tactics' of large combined-armed arms formations.³¹

²⁷ Samoilov, p. 61; A.I. Denikin, Put' Russkogo Ofitsera [The Journey of a Russian Officer] (New York, 1953), pp. 87-89.

²⁸ Shaposhnikov, p. 135.

²⁹ E.E. Messner and others, Rossiiskie Ofitseri [Russian Officers] (Buenos Aires, 1959), p. 38

³⁰ Shaposhnikov, p. 143.

³¹ B.V. Gerua, Vospominaniia o Moei Zhizni [Memoirs of My Life] (Paris, 1969), I. 252.

Despite these continuing problems, there can be little doubt that the reformists' academic efforts during these years did much to raise the quality of the interwar graduates' understanding of operations. Unfortunately, however, such victories proved fleeting, as the reactionary clique within the army regained its strength and confidence. The struggle between the competing factions ended in 1913 with the complete victory of the Sukhomlinov faction and the dismissal of many of the 'Young Turks' to other posts.

Much of the significant writing on operations during this period, both inside the academy and without, dealt with a range of questions which were central to developing a coherent theory of operations. Some of these had already been raised in basic form by Leer and would continue to animate military thinkers through what remained of the imperial era and well into the Soviet regime. These issues may be reduced to four basic questions. The first concerned the place operations were to occupy in relation to the fields of strategy and tactics. This was more than just a problem of semantics, and its resolution would have decisive consequences for the theoretical independence of operations and for creating the basis for elaborating a broader theory of operational art. The second question concerned the operation itself and dealt with the different categories of operations, as well as their preparation and conduct. The third dealt with the notion of the front/group of armies in the theatre of military activities, its mission, composition and system of command. Finally, the fourth question concerned the early theoretical speculation into what in the 1920s came to be called 'consecutive operations', or the conduct of uninterrupted offensive operations along a single axis to final victory.

Easily the most outstanding figure to explore these and other problems during this period was the aforementioned Aleksandr Aleksandrovich Neznamov, whose highly productive academic career spanned both the tsarist and communist regimes. Neznamov was born into a peasant family in 1872 and finished military-engineering school in 1893. He graduated from the General Staff Academy in 1900, where he



doubtlessly imbibed many of the reigning ideas on the place and conduct of operations according to Leer. Following service in the Manchurian theatre, Neznamov returned to the academy as an instructor, and was appointed professor of strategy three years later, while at the same time serving as a member of the army's commission to write a new field manual. Neznamov held a variety of command and staff posts during the Great War and was promoted to the rank of general-major in 1915. He joined the Red Army in early 1918 and taught briefly at the new RKKA General Staff Academy, before moving to the Military-Engineering Academy, where he worked as a professor until 1925. Neznamov continued to produce scholarly works under the Soviet regime and served on a number of administrative and historical commissions until his death in 1928.³²

Neznamov's interwar writings reveal him to be the sort of clear-headed analyst which the army so desperately needed. As opposed to Leer's lengthy discourses on the immutable principles of war, Neznamov was a convinced materialist who believed in the primacy of technical and economic factors in determining the development of military art. This shift away from the fuzzy and idealistic conceptions of the past helped pave the way for a more realistic study of modern war within the Russian army.

Neznamov's views on the subject of operations were most cogently expressed in his 1911 work, Modern War. The Activities of a Field Army, which was reissued a number of times under the Soviet regime. Even a cursory reading of the book reveals the extent of the author's debt to Leer, although he was able to improve upon the latter's ideas in a number of areas. Most importantly, Neznamov was able to advance somewhat the terminological independence of the operation from strategy and tactics. This distinction was most clearly expressed in a passage, which stated that

... just as the entire war is broken up into an entire series

³² A. Ageev, 'Voenno-Teoreticheskoe Nasledie A.A. Neznamova' [A.A. Neznamov's Military-Theoretical Heritage], V-IZh (1983), no. 11, pp. 84-89.

of operations, so each operation is broken up into an entire series of local **immediate objectives**, ... and they are all together united by the operation's common goal, just exactly as all the operations are linked among themselves by ... the war's **fundamental guiding idea according to objective and direction**.³³

Neznamov's formula reaffirmed the primacy of strategy over operations and further delineated their relationship in an emerging three-way division of labour. Thus strategy determines the overall military goal and attempts to achieve this through the grouping of various operations. The connection between the two is obvious even before the outbreak of war, during which time strategy determines the relative importance of the various theatres of war and the forces accordingly assigned to them, which in practical terms involves drawing up a plan for the strategic deployment of the country's armed forces. This plan, in turn, determines the armies' placement and objectives at the beginning of the war and constitutes, in effect, the first operational plan.³⁴ As the war progresses, strategy will continue to regulate operations by orienting the armies' axes of advance and allocating reinforcements, and by otherwise reacting to changes in the overall situation.

At the operational-tactical nexus the operation is clearly dominant over the innumerable tactical actions which comprise it. In practice, the operational plan establishes the number, type (offensive or defensive) and objective of these tactical actions, according to the forces allocated to them, in order to achieve the more long-range goals previously established by the strategic instance.

Neznamov fleshed out his notion of the operation with a battlefield definition, which served as a useful counterpoint to the more theoretical exegesis cited above. According to this view, a future war was likely to unfold in a series of forward movements by the attacker and corresponding withdrawals by the defender. These

³³ Neznamov, p. 14.

³⁴ Ibid, p. 15.

periods of activity would, in turn, be punctuated by periods of relative inactivity, during which both sides would seek to improve their respective positions by bringing up reinforcements and otherwise refitting in preparation for the next round of fighting. It was to these self-contained periods of preparation and fighting that Neznamov gave the name operations, thereby continuing Leer's practice of subsuming the various preliminary measures under the rubric of operations.³⁵

Taken together, these examples offer a definition of the place occupied by operations in military affairs which later Soviet theorists would find it difficult to improve upon. One sees, in fact, in these passages the outline of what would eventually become the standard definition of operational art from the mid-1920s. And while Neznamov did not set himself the task of creating a new discipline, his work in further separating the sphere of operations from that of strategy and tactics certainly helped to further the movement towards the operation's ultimate theoretical independence.

Neznamov was less successful in his discussion of phenomena at or near the operational level of war. This confusion chiefly revolved around his use of the term *srazhenie* (engagement, battle) and a number of concepts derived from it. By itself the engagement is a pure abstraction, which Neznamov defined as 'that towards which every operation tends', and which serves as the latter's 'logical end'.³⁶ Of somewhat greater substance were the 'army engagement' (*armeiskoe srazhenie*), which has much in common with what later became known as the army operation, and the 'general engagement' (*general'noe srazhenie*). The latter was a looser term which involved the collision of the greater part of the belligerents' armed forces in a single climactic battle, as was common during the wars of antiquity and Napoleon.³⁷ By way of historical example, one may consider the

³⁵ *Ibid*, p. 13; Leer, *Strategiia*, 4th ed., I. 23.

³⁶ Neznamov, p. 136.

³⁷ *Ibid*, pp. 155, 137.

Battle of Mons and the destruction of Gen. Samsonov's army in East Prussia as modern examples of the army engagement, while the battles of Galicia and the Marne correspond more closely to the author's notion of the general engagement.

However, these terms obscure as much as they elucidate, particularly as to the role of the operation vis a vis the army or general engagement. As defined by Neznamov, it is difficult to determine whether the different engagements are an integral and culminating part of the operation, or something separate for which the preceding operation functions merely as the maneuver prelude to the actual fighting. Moreover, by seeming to separate the general engagement from the operation, Neznamov inadvertently struck at the heart of the modern understanding of the operation, which holds that it is actually the general engagement which has been absorbed by the operation.

Neznamov was more fortunate in his examination of the various kinds of operations, which he divided into three types: offensive, defensive, and the meeting operation. As opposed to previous efforts, the author's functional delineation of the operation was more in tune with modern demands and would persist well into the Soviet period. Of the three, Neznamov considered the offensive operation the most important and devoted by far the most space to its study. In this regard he was not unlike many of his colleagues in the West before 1914, who looked forward to an offensive war of maneuver, despite the ominous hints of 1904-05. In the case of Russia, this more pugnacious approach also represented a healthy reaction to the army's chronic passivity during the Russo-Japanese War, in which the numerically inferior Japanese won repeated victories by seizing the initiative from the languid Russian command.

As to the various offensive forms available to the commander, Neznamov spoke approvingly of what he called the 'strategic breakthrough' (*strategicheskii proryv*), followed by a subsequent attack against one of the separated wings of the enemy front. Such an option, he claimed, had become more attractive of late due to the extreme elongation of the armies' fronts, which would impede any

defensive countermeasures.³⁸ This is a surprising assertion, in light of Neznamov's experience in Manchuria, which saw not a single instance of an operational breakthrough. Moreover, the approaching World War would clearly show that the prospects for such a breakthrough had been reduced dramatically, even under the more favorable conditions of the Eastern Front.

Neznamov's real preference was for the envelopment maneuver against the enemy's communications, carried out by an army acting semi-independently in the theatre of military activities. The chief exponents of this method were the chief of the German General Staff, von Schlieffen, and his predecessor, the elder von Moltke, whose encircling operations at Metz and Sedan continued to mesmerize European military thinkers forty years after the event.³⁹ Neznamov, however, had certain reservations and was quick to point out that the fortuitous circumstances of the Franco-Prussian War were unlikely to be repeated, given the increasing tendency of the battlefield to coalesce into a single front, with the corresponding loss of room for maneuver. To this list of factors he added modern communications and intelligence means, which had rendered the old-style turning movement (*obkhod*) all but impossible, although he did not entirely rule out its use in the operations of a group of armies.⁴⁰

As an alternative, Neznamov proposed the less ambitious flank-ing maneuver (*okhvat*), which he felt to be the most acceptable expedient under modern conditions. However, the inherent limitations of this maneuver were that the smaller forces involved and the movement's shallow scope were of tactical significance only, and could not lead to a decisive operational result. According to this scheme, the main flank attack would be accompanied by a secondary attack elsewhere along the defender's front. This would not only

³⁸ *Ibid*, pp. 21-22.

³⁹ Neznamov was known at the academy as a devotee of the German school of operations. See Shaposhnikov, p. 144.

⁴⁰ *Ibid*, pp. 21, 198-99.

divert the defender's attention from the main blow, but would also draw the latter's reserve into the battle against the secondary attack, leaving it vulnerable to a flanking movement by the main effort.⁴¹ This was a prescription for a maneuver as old as military art itself, and one which would be greatly expanded upon, both in theory and practice, under the Soviet regime.

The 'waiting operation' (*vyzhidatel'naia operatsiia*) was Neznamov's term for what otherwise was a defensive operation. However, as the name implies, the defender's mission was not limited to merely repelling the enemy's attacks, but was also to actively prepare for future offensive operations. Here, perhaps more than in any other area was felt the searing experience of the Russo-Japanese War and the widely-held belief that the war had been lost in large part due to the commanders' lack of offensive spirit. One can even detect here traces of the French cult of the offensive, which was all too willing to turn any defensive posture into the basis for an attack. Thus even when attacked by superior forces, the defender is to begin preparing a decisive counterattack, preferably against the enemy's flanks. This would involve stripping as many men as possible from the passive sectors in order to form a reserve capable of taking the attacker in flank and disrupting or halting his attack, preparatory to a counteroffensive.⁴²

Neznamov's preference for viewing the defensive as a forced measure, dictated by temporarily adverse conditions, was an approach which enjoyed great support among a later generation of Soviet theorists, as did his desire to promptly transform any defensive action into a counteroffensive. A serious shortcoming in his analysis, however, was his narrow focus on the army offensive operation, which necessarily confined his prescriptions to the operational-tactical sphere. Unfortunately for posterity, Neznamov chose not to address the idea of waging defensive operations at the front level or

⁴¹ *Ibid*, p. 178.

⁴² *Ibid*, p. 184.

theatre of military activities. This omission would be repeated, with tragic consequences, by later Soviet theorists prior to 1941.

Neznamov's final category was the 'meeting operation' (*vstrechnaia operatsiia*), which occurs when both sides are in motion. This was a comparatively recent phenomenon, brought about by the enormous growth of late nineteenth-century armies and their resulting tendency to form a continuous front. This was even more likely to be the case when both sides pursue an offensive strategy, as actually occurred in 1914. Neznamov thought it likely that given the limited space available for maneuver at the beginning of a European war, the first operations would inevitably unfold as frontal collisions, only after which would the future course of action become clear.⁴³ It is unfortunate, given the likelihood of the next war beginning as a series of meeting operations, that Neznamov did not devote more attention to this phenomenon.

Neznamov, like other theorists of his time, felt the need to address the problem of operational-strategic troop control; and in this area, as in others, his views are an interesting blend of foreign and domestic influences. For example, Neznamov's preferred army numbered approximately 200,000 men, a figure which can be traced directly to Leer.⁴⁴ However, a future European war might well involve the mobilisation of millions of men and their deployment into many such armies, thus vastly increasing the problem of command and control from the centre. As the coordination of this unwieldy mass would be beyond the powers of even the most brilliant commander-in-chief, Neznamov proposed combining these armies into two or four groups of armies for greater ease of control.⁴⁵

There was also a number of other reasons which prompted Neznamov to advocate the creation of groups of armies. He thus approvingly quotes the German von Schlichting's criteria for forming groups of

⁴³ *Ibid*, pp. 24, 62.

⁴⁴ *Ibid*, p. 194; Leer, *Strategiia*, 4th ed., II. 13

⁴⁵ Neznamov, p. 194.

armies, of which the most important is that the armies in question pursue the same goal and attack along the same strategic axis.⁴⁶ This condition, as we have seen, corresponds closely to Leer's definition of the theatre of military activities, which was later given flesh in the Russian 1900 war plan, which posited the formation of two fronts: one moving westward against Germany, and the other southwest against Austria-Hungary.

A 'group commander' (*komanduiushchii gruppoi*) would command each of these bodies and would answer directly to the commander-in-chief at the centre. However, as had Leer, Neznamov preferred a weak group commander and proposed to severely restrict his powers over the armies in the field. He believed that the commander-in-chief should orient the group commander only as to the larger goals being pursued, while the latter 'will regulate only the movement of the armies', thus leaving the individual army commanders a great deal of latitude.⁴⁷ Neznamov's penchant for decentralized control in this instance may have been a reaction to Kuropatkin's petty interference at Mukden, or admiration for the elder von Moltke's practice of giving his army commanders broad operational freedom. But however laudable these ideas may have been in theory, Neznamov's recommendations tended to undermine the group commander's authority and reduce him to a mere transmitter of instructions from the centre to the field armies, thus rendering the entire group/front command level superfluous. This also placed a premium on selecting army commanders who would not only display initiative, but who would also be able and willing to work together--a rare combination in any army.

Neznamov was probably at his most prescient when analyzing the inconclusive nature of modern operations. As we have seen, the increased viability of modern armies from the mid-nineteenth century had made their destruction in a single general engagement increasingly unlikely, although he continued to hail the latter as the 'ideal'

⁴⁶ *Ibid*, p. 196.

⁴⁷ *Ibid*, p. 197.

of military art.⁴⁸ This lesson had been driven home repeatedly during the Russo-Japanese War. There the Russians had abandoned the field at Liao-Yang, been fought to a standstill along the Sha-ho, and barely escaped disaster at Mukden. However, in spite of these victories, the Japanese army had never achieved anything approaching a strategic success, and the land war eventually ended in a positional stalemate.

In these and other cases the losing side had avoided a decisive defeat by breaking contact with the enemy and slipping away to regroup and fight again. Furthermore, the fighting in Manchuria revealed that the victor, instead of immediately following up on his success and finishing off his weakened opponent, is often as hurt and exhausted as the latter and must make good his losses before resuming the advance, lest he be defeated in turn by the defender, who has been able to replenish his forces more easily by falling back on his sources of material supply, while the further the attacker advances the more materiel he expends and the further he moves from his own base. Thus the victor is forced to halt his pursuit, lest he risk a counterattack and possible defeat at the hands of a revived foe. This materiel regrouping would necessarily entail a pause in the fighting until the army or front were brought back up to strength and able to resume the advance. This novel situation caused Neznamov to note that modern wars have come to unfold 'in the form of separate leaps of the attacker forward and the defender back', punctuated by periods of relative quiet as the opponents prepare for the next phase of fighting.⁴⁹ In this characterization of modern operations was an insight into a pattern of war which would become all too familiar within a few short years.

Here, in an admittedly rudimentary and incomplete form was the germ of what, under the Soviets, came to be known as the theory of 'consecutive operations', which sought to achieve a final strategic

⁴⁸ Ibid, p. 10.

⁴⁹ Ibid, p. 12.

result through the uninterrupted conduct of successive offensive operations. This area was to become one of the Red Army's most interesting and productive fields of theoretical endeavor during the 1920s, when armed with the rich operational experience of World War I and the Russian Civil War, a number of outstanding thinkers would build upon Neznamov's original notions to fashion a unique theory of conducting military operations.

For all of his foresight, however, Neznamov was not without his faults as a military thinker. Perhaps the most glaring of these from the modern point of view was his stubborn belief in the continuing utility of the Napoleonic decisive engagement, when recent history clearly indicated that the general engagement had been absorbed by the the operation, and was now, at best, merely the battlefield culmination of the latter's efforts. Neznamov's sometimes confusing and contradictory approach to the place of operations in military art also dogged his thinking and prevented him from making a truly imaginative leap forward. However, his shortcomings were those of his time and they should not blind us to his importance as a transitional figure, who, while serving both the tsarist and Soviet regimes, made a profound contribution to the development of his country's military theory. As his student, Shaposhnikov, later recalled, 'it is doubtful that anyone ... so revealed the character of modern operations like Neznamov'.⁵⁰

Among the other writers on operations during these years were two officers whose subsequent careers mirror the tragedy of the Russian officer corps after 1917. The more noteworthy of these was Gen. Nikolai Petrovich Mikhnevich, who was born in 1849. Following service in the Russo-Turkish War, Mikhnevich was graduated from the General Staff Academy in 1882, and from 1892 taught there as a professor of Russian military art. He also served briefly (1904-07) as the academy's chief as it was beginning to recover from the shock of the Manchurian defeat. Mikhnevich wrote widely on questions of

⁵⁰ Shaposhnikov, p. 145.

military strategy, areas of which would later be considered the proper sphere of operations. His most famous works in this area were Strategy (1911) and Fundamentals of Strategy (1913), in which he examined the changing nature of modern war and the place of operations in it. Mikhnevich, upon leaving the academy, served as a division and corps commander, and from 1911 to 1917 was chief of the army's Main Staff. He joined the Red Army in 1918, but due to his advanced age he took no part in the fighting. However, Mikhnevich did resume his teaching duties under the new regime and served as an instructor in the Artillery Academy until two years before his death in 1927.

The other was Col. Andrei Grigor'evich Elchaninov, who was born in 1868. Elchaninov entered the army in 1888 and was graduated from the General Staff Academy six years later, and from 1908 was a professor of strategy at the same institution. His enthusiastic lectures on the exploits of the great Russian commanders and his belief in the applicability of their principles to modern conditions mark him as an adherent of the 'nativist' school of military art. These and other views were most forcefully presented in his The Waging of Modern War and Battle (1909), and Strategy (1912). Elchaninov died in 1918 in southern Russia, where the anti-Bolshevik armies were beginning to coalesce.

Mikhnevich's views as to the place of operations in military art reflect the consensus on the subject that had emerged in the army. This he expressed in the following formula:

Each war consists of one or several campaigns; each campaign--of one or several operations, representing a certain complete period from the army's strategic deployment at the operation's starting point, to the resolution of the latter through a victorious combat on the battlefield....⁵¹

As this passage indicates, the operation continued, in Mikhnevich's mind, to occupy a sort of theoretical no-man's land between

⁵¹ N.P. Mikhnevich, Strategiia [Strategy], 3rd ed. (St. Petersburg, 1911), I. 152.

strategy and tactics. As did Neznamov, the author evidently believed that the end result of a number of operations and/or campaigns would be the general engagement,--the culmination of all previous operational activity-- which would, in turn, lead to a final strategic result. Again, this formula left precious little to the operation except to maneuver the armies in preparation for the climactic battle, which remained theoretically and spatially separate from the preceding operations. On the other hand, Mikhnevich did correctly subordinate the operation to the campaign, which is nothing more than a seasonal or geographical subset of strategy.

Mikhnevich divided operations into two types, according to goal, a delineation which was at once more precise than Leer's abstractions and less concrete than Neznamov's functional approach. Thus the 'main operation' (*glavnaia operatsiia*) has a decisive effect on the course of the war, while the 'secondary operation' (*vtorostepennaia operatsiia*), as its name implies, is of local significance only.⁵² Presumably either of these may be of an offensive or defensive nature, although the reigning offensive mentality within the army almost assured that the former would predominate. And although Mikhnevich did not elaborate on this point, it could be inferred that the main operation would be conducted in the chief theatres of military activities, while the secondary operations would be confined to less important theatres, or would be launched in support of major efforts in the more important theatres.

Mikhnevich also divided operations into two types, according to scale: simple and complex. The first would likely involve a spatially-restricted operation by limited forces, pursuing a single objective. The complex operation, on the other hand, would involve larger forces operating over a wider area, pursuing multiple objectives simultaneously.⁵³ This, in crude form, was the theoretical basis

⁵² N.P. Mikhnevich, Osnovy Strategii [Fundamentals of Strategy] (St. Petersburg, 1913), p. 127.

⁵³ Mikhnevich, Strategiia, I. 178, 180.

for distinguishing between simple (army) and complex (front) operations. Unfortunately, Mikhnevich failed to develop this interesting notion further, but the ideas and terminology he employed would resurface as the basis for later Soviet work in the 1920s in the area of army and front operations.

As to the latter, Mikhnevich recommended organising the nation's forces into groups of armies, each one numbering as many as 1-1 1/2 million men. These groups of armies might have a permanent or temporary organisation and would control those armies acting along a single 'operational line' (*operatsionnaia liniia*).⁵⁴ The latter corresponded closely to Leer's and Neznamov's notions of organising similar groups on the basis of their ultimate objectives within the theatre of military activities. However, unlike the others, Mikhnevich favored a looser form of control from the centre, in which the commander-in-chief would regulate the groups' and armies' actions in the only the most general fashion, thus according the groups commanders and their subordinate army commanders great freedom of action.⁵⁵ Unfortunately, the ticklish problem of relations between the latter two command levels was not examined at all.

The spatial growth of the formerly restricted battlefield into the theatre of military activities and the corresponding need for new forms of troop control was a topic which attracted Elchaninov's attention as well. Elchaninov, as did others, supported the creation of the front level of command, which would serve as an intermediary between the commander-in-chief and the armies in the field. However, the author belonged to that group of thinkers which sought to restrict the front commander's powers to indicating his subordinate armies' 'overall objective of activities', with the individual army commanders free to pursue their goals within these guidelines.⁵⁶

⁵⁴ Mikhnevich, *Osnovy*, p. 73.

⁵⁵ *Ibid*, p. 246.

⁵⁶ A.G. Elchaninov, *Strategiia* [Strategy] (St. Petersburg, 1912), pp. 201, 206-07, 387.

Finally, of particular interest for the future are Elchaninov's thoughts on the periodisation of a war into a number of operational episodes. Thus instead of a conflict crowned by a decisive general engagement, wars would henceforth take the form of what he called an 'unbroken series of local decisions', or local operations. These would unfold in a succession of operational efforts, which would yield a final result only after a prolonged effort.⁵⁷ Here again, in rudimentary form, was the outline of what became known in the 1920s as the theory of consecutive operations.

The most common theme amongst the more progressive theorists during these years was the broad agreement as to the necessity of establishing the front/group of armies command instance in order to control the various armies in a given theatre of military activities. As we have seen, Leer's early thoughts on the subject eventually found more concrete expression in the Russian army's 1900 war plan, which called for the creation of two separate fronts to coordinate operations against Germany and Austria-Hungary. And although this plan was periodically revised during the following years, the notion of two fronts operating along diverging axes in the western theatre of war remained unchanged.

The notion of a separate front level of command was one of Russia's more original contributions to military art, preceding by a number of years the creation of similar bodies in the West. The ideas associated with the front were ultimately codified in the Regulations on the Field Control of Troops in Wartime, issued on the eve of war in 1914. The Regulations stated that the prime requirement for creating a front is that several armies must be acting in concert in pursuit of a single strategic goal in a specific territory, or theatre of military activities.⁵⁸ This was simply a rehash of what had been stated by a number of theorists, from Leer onward.

⁵⁷ Ibid, p. 309.

⁵⁸ General'nyi Shtab, Polozhenie o Polevom Upravlenii Voisk v Voennoe Vremia [Regulations on the Field Control of Troops in Wartime] (Petrograd, 1914), p. 1.

These criteria served as the basis for forming the first wartime fronts in 1914, as well as others during the course of the war. They were later adopted by the successor Red Army and served, with little change, as the justification for the creation of similar bodies during the Civil War and World War II.

More at variance with past theory, however, were the Regulations' views on the role of the front commander. As we have seen, writers such as Leer, Neznamov and Mikhnevich tended to exalt the role of the individual army commanders at the front commander's expense, whereby the latter became little more than a figurehead, charged with relaying orders from the commander-in-chief to the army commanders. The Regulations stood this formula on its head, declaring that 'The commander-in-chief of the front's armies is the chief of the armies, fortresses and fleet designated for joint activities with the armies of a given front'.⁵⁹ This article represented a significant expansion, at least in theory, of the front commander's powers, and has much in common with Kuropatkin's wide-ranging authority in the Far Eastern theatre of war during the Russo-Japanese War, and with a similar and more successful experiment adopted by the Red Army in the same theatre in 1945.

As before, the front commander was subordinated to the commander-in-chief and charged with carrying out the latter's instructions by directing his subordinate armies towards the objective. However, the Regulations, in contrast to many of the views expressed earlier, unequivocally stated that the army commanders would be 'subordinate in all respects to the front commander-in-chief', and are given only the latitude necessary to carry out the latter's instructions.⁶⁰ This 'tilt' in favor of a strong front commander would yield the imperial army only variable success in the few years remaining to it. The follow-on Red Army, with its systemic tendency towards a high degree of centralisation, would later develop this idea even further.

⁵⁹ Ibid, p. 11.

⁶⁰ Ibid, p. 54.

The evolution of Russian views on the operation during this period presents a complex and often contradictory picture, with many progressive steps often matched by a retrograde one. To cite only the most egregious example, the consolidation of the art of operations into a self-contained discipline was still hampered by the reigning confusion as to the relationship of the operation to strategy and tactics, despite commendable progress in this area. Likewise, the otherwise progressive invention of the front/group of armies was still hobbled by the refusal of several theorists to endow the front commander with powers worthy of the name. However, progress had been made towards a functional delineation of operations into offensive, defensive and meeting types. Finally, the era's tentative investigation into the nature of successive operations gave great promise for the future.

Russian history is replete with efforts at reform, which have begun in a period of hope, only to be defeated by the conservative nature of the regime. At best, these endeavors have survived in a truncated form to serve as the inspiration for the next cycle of flux. This was the military reformers' fate during the period 1905-14, and they left behind a rich operational legacy which would serve at the basis for much of what was to come. The task of completing this work, however, would fall to a more vigorous regime, which by suffusing many of these ideas with its own peculiar energy, would take the next important steps in the development of operational art.

D. Operations in the First World War

During World War I the modern operation truly came into its own. Compared to the modest scope of earlier operations, those of the 1914-18 period were gigantic struggles, fought along extended fronts stretching hundreds of kilometers in breadth and depth. And, whereas earlier operations had been relatively short-lived and involved, at most, a few armies, the Great War's operations often lasted weeks, or even months, and embraced entire groups of armies.

Unfortunately, however impressive the increased scope of operations during the war, it was not matched by a similar growth in the skill with which they were conducted. As the war passed from its initial maneuver phase to a positional stalemate, military art at the operational level became increasingly devalued in favor of a purely tactical approach to the trench deadlock. The combatants' failure to find an operational solution to this unique situation led to the slaughter of Verdun and the Somme, and even greater carnage on the Eastern Front. In Russia the price of failure was too great and brought in its wake military collapse and social revolution.

When war broke out in August 1914 the Russian plan for the strategic deployment of its forces unfolded according to a schedule much like that of the other belligerents. The western theatre of war was divided into two theaters of military activities, embracing Germany and Austria-Hungary, respectively. These became, in turn, the geographical bases for the deployment of two fronts, the creation of which had been envisioned as far back as 1900. The Northwestern Front had the task of driving the Germans out of East Prussia and advancing on Berlin, while the Southwestern Front was to destroy the Austro-Hungarian forces in Galicia, before crossing the Carpathian Mountains and moving on to Budapest and Vienna. As the war progressed, the Russian supreme command (*Stavka*) in turn created the Northern (1915), Romanian (1916) and Caucasus (1917) fronts. The French, German and Austro-Hungarian armies also went on to create analogous army groups.

The Southwestern Front was commanded by Gen. N.I. Ivanov, whom a subordinate described as 'narrow, indecisive and incoherent'.⁶¹ Ivanov's command included the Fourth, Fifth, Third and Eighth armies, which were initially opposed by the Austro-Hungarian First, Fourth and Third armies, under the nominal command of Archduke Ferdinand. However, the real power was wielded by Gen. Conrad von Hotzendorf, chief of the General Staff. At the beginning of the Galician fight-

⁶¹ A.A. Brusilov, Moi Vospominaniia [My Memoirs], 2nd ed. (Moscow, 1941), p. 62.

ing the Austro-Hungarians outnumbered their adversaries by a margin of 787,000 to 691,000, due to the Russian army's slower pace of mobilisation, although new units continued to arrive on both sides throughout the battle.⁶² The Russians did, however, enjoy a slight superiority in artillery of 2,099 guns to 1,854.⁶³ Moreover, the Russians' morale was certainly higher than in the heterogenous forces of the Dual Monarchy.

Both sides' initial plans called for an opening offensive and were suffused with a desire for a quick victory, characteristic of the major belligerents' prewar beliefs. Each sought to recreate a new Sedan on an even larger scale by turning the enemy's flank and destroying his forces in a gigantic battle of annihilation. The Russians planned a concentric advance by all four armies against the Austro-Hungarian armies in southern Poland, in order to cut off their retreat through Cracow and across the Dniester. According to this scheme, Fourth and Fifth armies would advance due south on Przemyśl and Lemberg (L'vov), while Third and Eighth armies would move on Lemberg and Galich from the east. For its part, the Austro-Hungarian command planned to launch its major blow with First and Fourth armies due north between the Vistula and Bug rivers, while Third Army guarded the flanks of the advance around Lemberg. Conrad then hoped to continue the main drive north to meet what he believed would be a corresponding German attack out of East Prussia, thereby cutting off the Russian forces in the Polish salient west of Brest-Litovsk.

However, both plans were founded on a number of serious miscalculations, which would come to have a decisive influence on the course of the battle. The most serious of these was Conrad's error in assuming a major German thrust across the Narew, without which the Austro-Hungarian plan made no sense at all. Another was the conviction that the Russians would not deploy sizeable forces east of

⁶² Beloi, pp. 54-56.

⁶³ A. Kolenkovskii, Manevrennyi Period Pervoi Mirovoi Imperialisticheskoi Voiny, 1914 g. [The Maneuver Period of the First World Imperialist War, 1914] (Moscow, 1940), p. 81.

Lemberg, and that the Third Army alone was therefore strong enough to meet any threat from that direction. This grievous error was compounded by Conrad's foolish dispatch of the Second Army to the Serbian front, instead of deploying it against the Russians, as had originally been planned. This army was only beginning to arrive in Galicia when the fighting began. The Russians erred by assuming that the Austro-Hungarians would deploy their forces along the border in a way that would facilitate their planned double envelopment. As it transpired, Conrad's decision to concentrate his forces further south and west of the frontier seriously reduced the Russians' chances of a successful turning movement and ensured that the opening battles would play out as frontal collisions.

The Battle of Galicia (18 August-21 September, 1914) is conventionally divided into the Lublin-Chelm (19 August-3 September) and the Galich-L'vov (18 August-3 September) operations, followed by still more fighting and a subsequent pursuit.

Fighting first broke out on the northern wing, where the Austro-Hungarian First Army crossed the frontier on 20 August. North of the San River it collided head on with A.E. Zal'ts's Fourth Army, moving south from Lublin. On the 23rd the Austro-Hungarian left wing struck one of the Russian corps south of Krasnik and drove it back. Austro-Hungarian efforts to turn the Russian right flank along the Vistula continued the next day, as the latter gave ground slowly before superior forces. The Russians struck back in the centre, but the fighting yielded no clear-cut result; nor did it relieve the enemy pressure on the right. Zal'ts, worried about the threat to his communications with Lublin, ordered his army to fall back late on the 24th to a position south of the city. For his poor handling of the fighting, the elderly Zal'ts was removed from command and replaced by A.E. Evert.

Ivanov, concerned about the heavy enemy pressure on Fourth Army, ordered V.K. Pleve's Fifth Army to come to the assistance of its hard-pressed neighbor by changing its axis of advance from due south to southwest, with the object of striking the Austro-Hungarians

in the flank. This change of direction through Zamosc and Rava-Russkaia, however warranted by Fourth Army's situation, did not take into account the Austro-Hungarian Fourth Army, which was moving northeast from Przemyśl.

The two armies collided the next day in a series of battles between the Wieprz and Bug rivers. The Austro-Hungarians quickly attacked and defeated Fifth Army's right flank, forcing it to fall back on Krasnystaw, while the Russian centre was likewise bested north of Tomaszow. The fighting continued in the area for the better part of a week, with both sides suffering heavy casualties, but with the Austro-Hungarian superiority in numbers gradually beginning to tell. Fifth Army's units were slowly pushed north and east towards Krasnystaw and Komarow, respectively. However, the army's divergent paths of retreat created a dangerous gap between the its isolated wings and opened the way for a determined Austro-Hungarian advance on Chelm. To the west, enemy pressure continued against the Russian Fourth Army, although the danger of an Austro-Hungarian breakthrough towards Lublin was receding, thanks to a combination of heavy enemy casualties and the timely arrival of Russian reinforcements to the army's beleaguered right wing. The serious threat to Pleve's flanks continued, however, and he was finally forced to order an withdrawal on the 30th. The Russians here conducted a skillful fighting retreat and the exhausted Fourth Army was unable to pursue them with any success. By 3 September the Russians had safely retired to positions stretching from the Vistula west of Lublin, southeast to the area of Vladimir-Volynskii.

To the south matters developed more slowly, although the fighting was no less fierce. Here the battle began with the movement of Gen. A.A. Brusilov's Eighth Army from Proskurov to the frontier on 18 August, followed the next day by N.V. Ruzskii's Third Army out of Dubno. At first, the two armies encountered no serious resistance, and the Austro-Hungarians seemed content to remain behind their Lemberg positions. In spite of their preponderance of strength, the Russians' advance here was not as swift as it might have been,

particularly in light of the developing threat to the front's northern wing. In fact, as early as 25 August the front command had ordered Ruzskii to swing his main forces north of Lemberg, in order to maintain contact with Fifth Army's left wing as it executed its wheel to the southwest. However, the commander of Third Army disregarded these instructions and continued his advance towards Lemberg.

The first heavy fighting occurred along the Zolotaia Lipa east of Lemberg, where the Austro-Hungarians attacked Ruzskii's forces, despite being heavily outnumbered. During the first two days (26-27 August) the Russians fought off repeated enemy attacks along a 60-kilometer front, inflicting heavy casualties. On the 28th the Russians themselves attacked and drove the Austro-Hungarians out of their positions back to the Gnilaia Lipa. The fighting resumed the next day, as the Austro-Hungarian Second and Third armies launched another series of attacks. In a three-day battle (29-31 August) the Russians broke through the enemy position southeast of Lemberg. Another enemy attack was beaten off north of Galich by Brusilov's army, which then began its own advance on Lemberg from the southeast. With their last defensive line broken, the Austro-Hungarians abandoned the city and retreated to a position around Gorodok. On 3 September the Russian forces entered Lemberg.

Although the Russian armies in the east had won a significant victory, it had been purchased at the expense of Fifth Army, which by now was pulling back on Chelm. Third Army's fixation on Lemberg had continually drawn it to the southwest, away from the critical situation on Fifth Army's front. The Austro-Hungarian Fourth Army, in fact, had been seriously alarmed by Ruzskii's dispatch of a single corps towards Rava-Ruskaia and had slowed its pursuit of the Fifth Army accordingly. Only now, however, under intense pressure from both Ivanov and the Stavka, did Third Army turn to the northwest.

The results of the two operations were thus decidedly mixed, although the overall state of the front's two wings gave some grounds for optimism. In the north, Fourth and Fifth armies had been roughly handled, but not beaten. In fact, the Russian forces here were

growing stronger each day, with the arrival of fresh units, of which the creation of P.A. Lechitskii's new Ninth Army on 3 September was the most tangible result. The state of the eastern armies was even more favourable following the capture of Lemberg. Here the Russians had an excellent opportunity to finish off the Austro-Hungarians and roll up their entire right wing, with results that would inevitably affect the situation to the northwest. The foundation of a Russian victory was already present, if Ivanov could only get his armies to act in concert.

The situation called for a reappraisal of both sides' plans. Of the two, the Austro-Hungarian solution was the most radical, corresponding to its weaker position. With the hope of a German attack from East Prussia all but gone, and the growing threat to Fourth Army's rear, Conrad realized that a further advance on Lublin and Chelm was pointless, especially in light of growing Russian strength in the area. The chief of staff thus ordered his First Army to take up defensive positions against Ninth and Fourth armies. To the south, Third and Second armies were to regroup for an attack against Eighth Army. Most audaciously, Conrad then detached part of Fourth Army to watch the supposedly-beaten Russians in the Zamosc-Hrubieszow area, while the greater part of the army would turn 180 degrees due south to close the gap in the Austro-Hungarian line and strike the Russian Third Army in the flank. The plan was daring, and even foolhardy, but it was the only alternative to a major Austro-Hungarian withdrawal from what was becoming an increasingly untenable situation.

The Russian plan, on the whole, remained faithful to Ivanov's original idea of a concentric offensive by all his armies. Thus Ninth and Fourth armies would attack southwest towards the lower San, while Fifth Army was to put itself in order and move south on Tomaszow. Third Army would advance with the greater part of its forces north of Lemberg in the direction of Jaroslaw, and Eighth Army was to support this move from the south by pushing the enemy out of his Gorodok position and back on Sambor. Ivanov's plan was cautious and

unimaginative, but it had the virtue of simplicity, compared to Conrad's scheme, and sought to employ the front's armies in a coordinated fashion. Their plan may also have reflected the Russian commander's lingering fear of a German attack in the rear of his front, particularly following the spectacular defeat of Gen. Samsonov's Second Army at Tannenberg in late August, which effectively uncovered the route to Warsaw from the northwest. However, for reasons of their own, the Germans elected to move against the remaining Russian First Army and left their Austro-Hungarian allies to their own devices.

The Russian counteroffensive began in the north on 4 September with a concerted attack by all three armies. These forces advanced cautiously against the outnumbered Austro-Hungarian defenders, who nonetheless launched a number of local counterattacks. However, the weight of numbers slowly began to tell and the Russians took Zamosc on the 6th, as the Austro-Hungarian right wing started to bend back under the pressure. To the east, the bulk of the rejuvenated Fifth Army bore down on the weak enemy screen in the Komarow area and was approaching the rear of Fourth Army's main forces, which had pivoted south in accordance with Conrad's instructions and now occupied positions in the Rava-Rusaskaia area. On the 9th, Fifth Army took Tomaszow, thereby increasing the pressure on Fourth Army's exposed left flank. To the west, the Russians continued their methodical advance against the First Army.

West of Lemberg, Third and Eighth armies had reached the Gorodok position along the Vereshchitsa River in most places by the 5th. Once again, the fighting took the form of an extended meeting engagement along most of the front, while both sides tried to outflank the other north of Rava-Rusaskaia. However, the approach of Fifth Army's units from the north caused the Austro-Hungarians to break off these attempts and pull back their line, first to the west, then further to the southwest, where it came under increasing pressure from the reunited Russian forces. Further south, Third and Eighth armies had to withstand repeated attacks over several days (8-

12 September) along the entire front south to the Dniester by the greater part of three enemy armies. At times it seemed as though the Austro-Hungarians would break through to Lemberg, but the Russians managed to hold on, and on 12 September the exhausted attackers broke off the action.

Far to the northwest, meanwhile, First Army continued to fall back against Russian attempts to turn its flanks. By 10 September it had withdrawn south of Krasnik under growing pressure. The impending collapse of the Austro-Hungarian left wing was fraught with danger for the main armies fighting to the east and southeast, which were in danger of having their escape routes to the west cut off. Here, Fourth Army was in particular danger of being outflanked by Russian attacks north and east of Rava-Ruskaia. The town fell on the 11th and the Austro-Hungarian situation became critical, and it seemed as though the Russians would soon break into their rear. At this point, Conrad at last realized that he was beaten, and that same day issued an order for a general withdrawal to the west.

The Austro-Hungarian retreat soon got out of hand as the armies streamed back to the west and southwest. By the 15th the Russians had reached the line of the lower San and were approaching Sambor on the upper Dniester. The Russians pursued as best they could, but the terrible state of the primitive roads and their own supply shortages enabled the enemy to escape. The front line finally stabilized east of the Dunajec and the Russians were able to blockade two enemy corps in the fortress of Przemyśl.

Although the Russians had failed to achieve their goal of destroying the Austro-Hungarian armies, the Battle of Galicia was nevertheless a great victory and a much-needed antidote for the disaster in East Prussia. According to Soviet figures, The Austro-Hungarians lost 326,000 men in the fighting, of which more than 100,000 were prisoners, including 400 guns. Russian losses are put at 230,000, of which 40,000 were prisoners.⁶⁴ The overall strength

⁶⁴ Beloi, p. 353.

of the Austro-Hungarian armies in Galicia fell by some 45% during the battle.⁶⁵ The Dual Monarchy had suffered a major defeat and would henceforth need substantial German assistance in order to survive.

Aside from its immediate battlefield results, the Battle of Galicia is significant for what it reveals about the further development of the operation, according to a number of indices. In purely quantitative terms, the operation had grown immensely in scope over the last ten years. At the height of the fighting well over a million men were involved in continuous fighting that lasted along a more or less continuous front, which at its greatest length stretched some 400 kilometers and had ebbed and flowed in places to a depth of 200-250 kilometers.

In a qualitative sense, the fighting in southern Poland represents the first clear-cut example of Russian operational command and control at the front level. As has been shown, Kuropatkin commanded a front in all but name at Mukden, but his purely tactical view of the battle and his failure to employ his armies as such negated the operational significance of this development. Likewise, Gen. Zhilinskii's incompetent handling of the Northwestern Front's armies during the East Prussian operation (17 August-15 September, 1914), indicated that he had no clear conception of his role as commander-in-chief in a theatre of military activities. Unfortunately, Ivanov's front-level conduct of the Battle of Galicia showed that he understood his role little better.

Ivanov's faults in conducting the operation stem mainly from his 'hands-off' approach to the operation and the activities of his subordinate army commanders. Gen. Ruzskii's conduct in blatantly ignoring the front commander's orders is a particularly egregious example of this. The impunity with which he acted may stem as much from the pre-war Russian belief in giving the individual army commanders the maximum freedom of action as it does from the front commander's own lack of will in imposing his vision of the operation

⁶⁵ Ibid, p. 276.

on his subordinates.

The Russian victory in Galicia posed a serious threat to Cracow and Germany's upper Silesian industrial area, bringing about a shift in both sides' efforts to the left bank of the Vistula. The resulting fighting included the large-scale Warsaw-Ivangorod (28 September-8 November, 1914) and Lodz (11-24 November, 1914) operations, which brought neither side a decisive victory. Thereafter, the front in the east stabilised for the winter.

The problems of waging war under modern conditions had by 1915 fully matured into a positional stalemate on both the Eastern and Western fronts. This novel situation was in direct contradiction to much of prewar Russian and other theory, which held that a decision would most likely be achieved on the enemy's flanks. By 1915 the possibilities for such a maneuver were nil, as the extremes of both fronts were now anchored on the sea or neutral territory. The conditions of trench warfare were by no means uniform, however, and on the Eastern Front a greater degree of fluidity always existed, due to the vast distances involved and the uneven quality of the opposing troops. These factors made breakthroughs in the trench line and the restoration of limited maneuver somewhat easier than in the West. This was demonstrated most clearly at Gorlice in May 1915, when a powerful Austro-German assault broke through the Russian position and proceeded to roll up their entire front in Galicia. The retreat continued throughout the summer and fall, as the Russians yielded up Poland and Lithuania in a campaign which eventually cost them more than two million casualties and 1,300,000 prisoners.⁶⁶ Thereafter the front stabilised once again as the Central Powers turned their backs on Russia to seek a decision in the West.

By the spring of 1916 the Russian armies had recovered sufficiently from the previous year's disasters to once again consider offensive operations against the Central Powers along a front stretching more than 1,200 kilometers from Riga in the north, southward

⁶⁶ N.N. Golovin, Voennye Usiliia Rossii v Mirovoi Voine [Russia's Military Efforts in the World War] (Paris, 1939), II. 139.

through Dvinsk, Baranovichi, Pinsk, Rovno and Tarnopol', and ending at the Romanian border. The Russian forces were now organised into three fronts: Northern, Western and Southwestern, numbering some 1,732,000 men, facing a combined Austro-German force of 1,061,000.⁶⁷ However, while at first glance the Russian superiority seems impressive, their advantage was considerably degraded by a chronic shortage of artillery and a continuing qualitative inferiority vis a vis the better-trained and better-led Germans.

The Russian high command met in April 1916 at Stavka headquarters in Mogilev to map out the details of the summer campaign. This group included Tsar Nicholas II, chief of staff Gen. M.V. Alekseev, and the three front commanders. The conference decided to make the summer's main attack by Gen. A.E. Evert's Western Front towards Vil'nius, just south of the site of the disastrous March offensive at Lake Naroch. Gen. Kuropatkin's Northern Front would assist this effort with an attack towards Vil'nius from the Dvinsk area. Gen. A.A. Brusilov, the newly-appointed commander of the Southwestern Front, was to begin the offensive cycle by attacking towards Lutsk in order to draw enemy reserves away from the main blow. That the Southwestern Front would attack at all was due to Brusilov's insistence on an offensive role for his forces, as opposed to the other front commanders who openly despaired of success.⁶⁸ The attitude of those commanders entrusted with the main offensive role is especially perverse, given the Russian's superiority in men along the front north of the Pripiat' Marshes.

Returning from the conference, Brusilov assembled his army commanders to dictate his plans for the upcoming offensive. As had been decided at Mogilev, the Southwestern Front's main effort would be made from the Rovno area towards Lutsk. However, Brusilov, instead of following the usual practice of massing all his forces here for a single narrow breakthrough, selected a radically different

⁶⁷ Cherkasov, p. 186.

⁶⁸ Brusilov, pp. 178-80.

approach. The front commander demanded that each of his four armies prepare an attack zone along its front, as well as in a number of corps sectors. This meant, in effect, that the Southwestern Front would be attacking along almost the entire length of the 450-kilometer front in order to deprive the enemy 'of the possibility of gathering all his forces in one place', so that he would not be able to determine 'where the main blow will be launched against him'.⁶⁹

Such a radical dispersal of force was particularly novel in light of the slight overall advantage in men and materiel which the Southwestern Front possessed. On the eve of the attack the Russians outnumbered the Austro-Hungarians in infantry by 573,000 to 437,000 men, while remaining significantly inferior in heavy artillery.⁷⁰ However, if the Russians would be attacking with what was a bare superiority of force, they nonetheless possessed a number of distinct advantages over the enemy. The most salient of these was their clear moral superiority over the dispirited Austro-Hungarian armies, many of whose Slavic contingents were less than eager to support the Dual Monarchy against their Russian cousins. The Austro-Hungarian chief of staff further compounded the weakness of his forces by siphoning off many of his best troops and artillery to carry out his Asiago offensive against the Italians in May. Thus Brusilov would be attacking the enemy coalition at its weakest point along much the greater part of his front, with the tougher Germans holding only the area north of Lutsk.

Brusilov chose to make the front's main effort in the Eighth Army's sector, whose commander, Gen. A.M. Kaledin, would attack due west towards Lutsk, supported by demonstration attacks on either wing. The enemy was to be further confused by a cavalry raid aimed at Kovel'. Brusilov also planned a second offensive in Bukovina with Lechitskii's Ninth Army, for the purpose of defeating the Austro-

⁶⁹ *Ibid*, p. 183.

⁷⁰ L. Vetoshnikov, 'Brusilovskii Proryv (Kratkii Operativno-Strategicheskii Oчерk)' [The Brusilov Breakthrough (A Short Operational-Strategic Sketch)], *Voennaia Mysl'* [Military Thought] (1939), no. 7, p. 78.

Hungarian Seventh Army and inducing the Romanians to enter the war on the Allied side. Brusilov's two centre armies (Eleventh and Seventh) were assigned supporting roles with the task of drawing off enemy strength from the main breakthrough areas.

Brusilov's formula was certainly novel for its time. Heretofore, the Russians had essentially copied Western methods of organising a breakthrough, which involved the massing of overwhelming numbers of artillery and infantry along extremely narrow sectors of the front, in order to punch a hole through the enemy's deeply-echeloned defence. Such preparations were typical of offensive operations for most of the war, particularly on the Western Front, in spite of the many and obvious drawbacks. Not only was this procedure tremendously expensive in terms of shells and manpower; the factor of surprise was also completely negated, as such large-scale offensive preparations could rarely be hidden from an opponent possessing modern reconnaissance means, particularly aircraft. Any remaining doubts as to the actual sector of the attack were soon removed by a lengthy artillery bombardment, during which time the defender could always bring up reserves to meet the impending offensive. Brusilov's solution was not only the proper one, given his limited resources, but more in tune with the peculiar conditions of the Eastern Front.

The Russian attack commenced in the early hours of 4 June with an artillery bombardment along the entire front. The infantry attack which began the next day was quite successful, except in the north, where the combined infantry-cavalry raid quickly broke down in the swampy terrain. Repeated attacks in this area brought no more than minor gains at great expense. To the south the Eighth Army's main effort made great progress and completely uprooted the defenders from their heavily-fortified positions. The breakthrough here was complete and by the 7th the Russians had taken Lutsk and advanced 25-35 kilometers along a 70-80 kilometer front. Even more profound was the almost total collapse of the Austro-Hungarian Fourth Army, which had quickly 'melted away into miserable fragments', according to a

disgusted German observer.⁷¹ Indeed, such was the magnitude of the disaster that Russian sources report capturing over 72,000 prisoners and 94 guns in this sector alone in the first five days.⁷²

Unfortunately for the Russians, Brusilov lacked the means to exploit his success properly. Eighth Army's units were already fully committed to the battle, and what should have been the army's mobile reserve was being frittered away in useless attacks north of Lutsk, an area manifestly unsuited for large-scale cavalry actions. Thus when the road to Kovel' lay practically undefended, the Russians had no forces at hand to take the city. The defenders could hardly believe their good fortune. As Gen. Ludendorff, the German deputy commander in the East, later testified: 'The Russians had not followed up very smartly in a westerly direction, although a great victory was beckoning them'.⁷³

At this critical juncture in the offensive Brusilov seems to have been almost as bewildered by his success as the Austro-Germans, as he watched his supporting attack quickly become the greatest Russian success of the war. However, instead of driving into the gap with the forces on hand, he now ordered his units to consolidate along the Styr' River and to expand the penetration along either flank, while the cavalry was to continue its efforts to break through to Kovel'. Brusilov's hesitation at this point shows that he had little in common with the romanticized 'fighting general' image which he and successive generations of Soviet and western historians have constructed.

The Stavka intervened to further complicate an already difficult situation on 9 June, when Alekseev ordered Brusilov to call off the advance on Kovel' and, instead, move southwest on Rava-Russkaia. The same message also informed the front commander that Evert's

⁷¹ E. von Falkenhayn, General Headquarters 1914-1916 and its Critical Decisions (London, 1919), p. 246.

⁷² Brusilov, p. 196.

⁷³ E. Ludendorff, My War Memories, 1914-1918 (London, 1919), I. 222.

attack had been postponed to 17 June. In an odd swing of moods, Alekseev's initial doubts as to the wisdom of Brusilov's attack had been transformed by unexpected success into a desire to achieve a larger decision. By moving on Rava-Ruskaia, Alekseev evidently sought to turn the Austro-Hungarian flank in the north and split the Hapsburg armies off from their German allies. This was a task for which the front's meager resources were entirely insufficient, all the more so as the other fronts remained inactive. Brusilov protested this order and was thus able to get the axis of his main advance shifted to the less-ambitious direction of Vladimir-Volynskii.

The Eighth Army, temporarily diverted from Kovel', continued its attack due west, pushing across the Styr' against feeble Austro-Hungarian resistance. By now Brusilov had come to realize the futility of his cavalry attack and began switching what remained of this force southward to exploit the success around Lutsk. By 15 June the army had penetrated as far as the Stokhod River, equidistant from Kovel' and Vladimir-Volynskii. To the south, Eleventh Army was able to take advantage of its neighbour's success to push its right flank nearly to Brody. Matters developed less well on Seventh Army's front, where the Russians continued to flail ineffectually at the enemy's second defensive zone. Ninth Army renewed its offensive on 10 June and was immediately successful when the enemy withdrawal got out of hand and became a rout. On 18 June the Ninth Army forced the Prut River and captured Chernovtsy.

As word of the Austro-Hungarian collapse spread, the Germans acted with their usual despatch to shore up their faltering ally. The Dual Monarchy was forced to shut down its Italian offensive and move forces back to Volhynia, while the Germans began to frantically strip units from both the Eastern and Western fronts and rush them to the Kovel' area. The Germans were immensely aided in these efforts by their highly-developed rail net and their interior lines of communications, which enabled them to rapidly switch forces from one front to another.

On 16 June a mixed Austro-German force began a series of

counterattacks along the entire perimeter of the Lutsk salient. However, the attacks achieved little and only succeeded in pushing the Russian lines back a few kilometers, flattening the bulge's nose. The German commander, Gen. von Linsingen, had not waited to assemble a sufficient striking force, but had committed his units into the battle as they arrived, thus reducing the counterattack's effectiveness. By 21 June the attack's impetus was spent and the initiative once more passed into Russian hands.

However, Brusilov continued to be hobbled by the Western Front's delays in launching its Vil'nius attack. Evert's reluctance to move was well known and his grand offensive was further postponed until early July. Furthermore, it was decided to switch the main effort south to the Baranovichi area, a move which set back the timetable even more. This useless maneuvering gave the Germans a free hand to shift their troops from Evert's and Kuropatkin's fronts to meet the crisis at Lutsk. Brusilov was beginning to receive reinforcements as well from the other two fronts, whose commanders were probably just as glad to be deprived of the means for conducting offensive operations. On 24 June Evert's left-flank Third Army came under Brusilov's command, although this infusion of strength did nothing but lengthen the latter's front, and could do little to restore the opportunity forfeited by repeated postponements of the main attack.

Brusilov's order for the renewed offensive were issued on 25 June. Third Army was to move due west towards Gorodok and Manevichi, while Eighth Army was to launch its main drive on Kovel', with a secondary blow aimed at Vladimir-Volynskii. Eleventh Army was to continue attacking towards Brody, and the Seventh was to move on Monasterzhiska. Ninth Army would reorient its advance northwest, towards Stanislavlov and Galich, with the date of attack set for 4 July.

For once the Russian high command managed to achieve a modicum of strategic coordination. The Western Front's Baranovichi offensive opened on 2 July, although this ostensible main effort actually

preceded the 'supporting' attack by two days. But the lack of preparation in switching forces to this new front told early on and the attack was a complete and bloody failure. Evert called off the offensive after just nine days, with a loss to the Russian Fourth Army of some 80,000 men.⁷⁴

The Southwestern Front's renewed offensive now enjoyed only mixed success, with the armies on either wing (Third, Eighth and Ninth) advancing furthest, while the centre armies (Eleventh and Seventh) were held to minor gains. In the south, Ninth Army continued its successful drive between the Prut and Dniester rivers and pushed the Austro-Hungarian back still further. The fighting was most fierce to the north, in the area between Lutsk and the Pripiat' River, where Russian casualties were averaging 15,000 men per day.⁷⁵ Here Eighth Army was able to push only a few kilometers across the Stokhod River before being halted by German reserves. The Third Army's attack gained considerable ground between the Styr' and Stokhod, and at one point seemed poised to break through to Kovel' from the northeast. Ludendorff called this time 'one of the greatest crises on the Eastern Front', when it seemed unlikely that the Dual Monarchy's hapless troops could hold out against the repeated Russian attacks.⁷⁶ But stiffened with German reserves, they just managed to hold on and the Russian attacks gradually exhausted themselves. Brusilov halted the offensive on 11 July and immediately set about reorganising his forces for another effort.

By now the Stavka had finally realised the importance of Brusilov's attack and had begun shifting forces to the Southwestern Front in earnest. By the latter half of July Russian forces south of the Pripiat' Marshes numbered 711,000 men against 421,000 Austro-Germans, a significant increase over the slight superiority of early

⁷⁴ A.M. Zaionchkovskii, Mirovaia Voina, 1914-1918 [The World War, 1914-1918], 2nd ed. (Moscow, 1931), p. 269.

⁷⁵ Cherkasov, p. 15.

⁷⁶ Ludendorff, I. 226.

June.⁷⁷ However, this added advantage served no particular purpose except to tempt Brusilov into making more expensive attempts to take Kovel'. The element of surprise which had served the Russians so well at the beginning of the offensive was now entirely gone, and the Central Powers could make better use of their inferior numbers by using their superior rail system to switch troops to the threatened sectors.

Nonetheless, Brusilov resumed his attacks all along the front on 28 July, with Third Army striking towards Kovel' and Eighth Army moving westward on Vladimir-Volynskii. Unfortunately, lack of success along the main axis did not stop him from repeatedly throwing his troops into bloodily unsuccessful attacks against the enemy's positions along the Stokhod. Gen. von Falkenhayn recalled that the Russian losses during this period 'must have been nothing short of colossal'.⁷⁸ This was hardly the imaginative and resourceful commander of June, who sought to do his best with the small numerical superiority available to him. The end result of this senseless attrition was a few kilometers of ground gained before the attack was once again halted.

In the south the Russians fared better against armies which were substantially Austro-Hungarian in composition. Here the Russians were able to take Brody and advance to within 50 kilometers of the vital rail centre of L'vov. The greatest successes took place on Ninth Army's front, where the Russians took Stanislavlov, and in August, Galich and Kolomyia, and threatened to push through the passes of the Carpathian Mountains onto the Hungarian plains. However, given the secondary nature of this sector and the poor state of Russian communications in the area, the offensive here soon died out from lack of sustenance, although the fighting here and along the rest of the front sputtered on fitfully well into autumn.

By mid-August, the Southwestern Front's great offensive, for

⁷⁷ Cherkasov, p. 8.

⁷⁸ Falkenhayn, p. 270.

all practical purposes, had ended due to the exhaustion of all parties and the enormous casualties on both sides. Brusilov later claimed to have inflicted 1,500,000 casualties on the enemy, plus another 450,000 captured through mid-November.⁷⁹ Russian casualties are more difficult to arrive at, although Falkenhayn was by no means exaggerating. The Southwestern Front suffered 497,000 casualties in the offensive's first ten days alone, and the government was forced to call up an additional 1,900,000 men to make good the army's losses.⁸⁰

Although intended purely as a secondary effort, the Southwestern Front's summer offensive did achieve a number of important and unexpected strategic results. The substantial drain in resources forced the Austro-Hungarians to call off their successful Italian offensive, and the Germans had to forgo their plans for a preemptive attack against the British offensive preparations along the Somme in France.⁸¹ The offensive's initial success prompted Romania to join the Allies, although its belated effort was later crushed in a lightning campaign which left the Central Powers even stronger in the Balkans than before. Finally, the front's offensive completed the destruction of the ramshackle Austro-Hungarian army as an effective fighting force, at least on the Eastern Front.

However, it is at the operational level that the 'Brusilov offensive' presents the greatest interest, particularly during the initial breakthrough phase and the early attempts at exploitation.

As we have seen, Brusilov eschewed the practice of launching a single major attack along a narrow front in favor of several separate army and even corps efforts at widely-separated intervals, in support of the front's major effort. This method of tactical-operational concentration along the projected breakthrough zones, against an operational-strategic scheme of dispersion south of the Pripiat'

⁷⁹ Brusilov, p. 206.

⁸⁰ Zaionchkovskii, p. 271.

⁸¹ Falkenhayn, p. 250.

Marshes, and aided by the indifferent quality of the enemy forces, ensured a rapid breakthrough in several places at once, with the greatest success along the main sector. During the offensive's first two weeks the Eighth Army advanced to a depth of 75 kilometers, which was quite good for the time, even in the more mobile conditions of the Eastern Front. Such rates even compare favorably with several of the 1918 offensives on the Western Front, which demanded a far heavier investment in men and materiel.

But the attack's initial impetus quickly exhausted itself, and after mid-June the gains were few and horrendously expensive, except in the south, where Ninth Army ultimately penetrated up to 150 kilometers. The answers for the Russian failure to achieve a decisive operational success must be sought in the shortcomings of the front command, and in the meager materiel support allotted to the offensive, which in turn was the result of prior decisions at the strategic level.

Brusilov's chief problem lay in the contradiction between his original conception of his front's supporting role and the great vistas revealed by the operation's first spectacular successes. His original desire to engage and occupy the enemy in as many places as possible led him to approve the Eighth Army commander's plan to launch two separate attacks on Kovel', leading to an unnecessary dispersal of force along the axis of the main advance. Thus the main, or southern, wing attacked with all its corps arrayed in a single echelon along the front, without a second echelon to impart depth and sustainability. The few reserve divisions available were inadequate and were, in any event, quickly consumed during the breakthrough. Thus the Russian attack remained a 'one-punch' affair without the means for following up any success. The harsh lesson of the Lutsk operation was that in order to break through a deeply-fortified enemy front and exploit the penetration, the attack must be organised in depth as well.

In spite of these faulty initial dispositions, Kovel' might have fallen in June had either Kaledin or Brusilov demonstrated the

requisite flexibility in adapting to their unexpected success. Unfortunately, Brusilov's conduct was marked by indecision during this time, when a commitment to a rapid push to Kovel', even without reserves, might well have been successful.

However, if Brusilov proved himself no better than his contemporaries in exploiting his opportunities, his actions, once the offensive's original impetus had exhausted itself, place him among the worst of a bad lot. By taking Lutsk, the Southwestern Front had already done far more than was ever expected of it, and Brusilov can hardly be held responsible for the Stavka's failure to insist on an immediate attack by the other fronts. Brusilov, having failed to push on to Kovel' after the breakthrough, should have been content to rest on his laurels. Unfortunately for the Russians, once the Southwestern Front became the 'main front' and began to receive the lion's share of reinforcements, Brusilov seems to have lost the capacity for original thinking forced upon him by his former scarcity of resources and reverted to the labourious and grinding attacks favored by too many of his contemporaries. Far from bringing any benefit to the Russian cause, this senseless prolongation of the attack went far towards undermining what remained of the army's offensive spirit. As the fighting along the Stokhod continued into the autumn, incidents of entire regiments refusing to leave their trenches were reported; a development which presaged the army's final collapse in 1917.⁸²

In retrospect, it would have been wiser to have shut down the offensive no later than mid-July, as its original justification as a prelude to the Western Front's main blow had by then evaporated. Soviet operational theoreticians of the 1920s would later make much of the notion of not pushing an offensive beyond a point where the risks and losses incurred begin to outweigh the results achieved. In the Lutsk operation, they found a lesson and a warning.

The continuing slaughter at the front, combined with Russia's

⁸² Cherkasov, p. 15.

mounting economic troubles, led to the overthrow of the Romanov dynasty in March, 1917. The newly-formed Provisional Government later appointed Brusilov supreme commander-in-chief, from which post he oversaw the final, disastrous Russian offensive of the war. This was the so-called June operation (29 June-28 July), in which troops of the Southwestern Front attacked south of Lemberg. The Russians made respectable progress at first, but the political confusion and defeatist rot which had seized the army was now too strong, and the offensive ground to a halt south of Galich. A counterattack by combined Austro-German forces quickly threw the Russians back to their starting positions and beyond. The retreat became a rout and by the end of July the Russians had lost Tarnopol' and Chernovtsy. This defeat fatally undermined what was left of the Russian army and helped to set the stage for the Bolshevik coup three months later.

CHAPTER II

OPERATIONS DURING THE RUSSIAN CIVIL WAR AND THE WAR WITH
POLAND, 1918-1920

A. Introduction

As a background to the study of operational art, the Russian Civil War constitutes an extremely interesting, although highly contradictory phase in the theory's development. The peculiarities of the conflict, at once grandiose in its immense spatial scope, and at the same time anachronistically small in the numbers of men and equipment actually engaged, represent a highly eccentric break with the heretofore orderly quantitative development of a number of operational indices. For example, at its greatest length in early 1919 the 'front' stretched some 8,000 kilometers, from the Gulf of Finland south along the border with the Baltic states, then east across southern Ukraine to the Volga River and the Caspian Sea. The line then moved north through the Volga-Kama basin, before turning to the northwest until it reached the Finnish border north of Petrograd (Leningrad/St. Petersburg). From mid-1918 the fighting centred along two main fronts, which alternated periodically in strategic importance. These were the Eastern, generally between the Volga and the Ural Mountains, and the Southern, embracing most of Ukraine, the Don River basin and the northern Caucasus Mountains. During the war with Poland the front came to include the western districts of Ukraine and Belorussia, to the ethnic border of Poland and beyond. Secondary fronts also existed at various times in Estonia, the area south of Archangel and Murmansk, the Trans-Caucasus, Central Asia and the Far East. The Soviet forces held the interior of this line, while their enemies, the Whites, operated from the periphery.

The troops available to man this front were hopelessly inadequate, due not only to an objective shortage of manpower, but to their irrational employment as well. For example, at its peak strength in 1920 the Worker' and Peasant's Red Army (RKKA) numbered nearly five million men, of which 874,000 were regular troops and a mere 295,000 were combatants.¹ The White armies, for their part, never totaled more than 640,000 men at best, although they made up somewhat for their inferiority by the high proportion of trained officers in their ranks.² In material terms the situation was even worse, due to the almost complete collapse of industrial production during these years. For example, by the end of the Civil War the Red Army still possessed only 2,300 artillery pieces, or about as many as were in the German Fifth Army, which attacked along a 15-kilometer front at Verdun in 1916.³ Rarely in the history of modern warfare have the forces of the warring parties been so minuscule in relation to the stakes involved.

These factors made the maintenance of a continuous defensive front impossible and shifted the advantage decisively in favor of the attacker, who could generally break through the defender's porous front or turn his position by means of a flanking movement. This helped to make the Civil War a conflict of exceptionally wide-ranging maneuver, particularly in comparison with the limited movement of the Great War. The scarcity of reserves on both sides, coupled with the defender's single-echelon formation, made even the slightest breakthrough or turning movement a potential disaster for the defence. Thus while offensives on the Western Front in 1914-18 could often be measured in hundreds or thousands of yards gained, Civil War operations flowed back and forth over hundreds of kilometers. For exam-

¹ Movchin, p. 43.

² Kamenev, p. 58.

³ I.M. Kravchenko, 'Kharakternye Cherty Operativnogo Iskusstva i Taktiki RKKA v Gody Grazhdanskoi Voyny' [Characteristic Features of the RKKA's Operational Art and Tactics During the Civil War]. In I.I. Mints, ed., Iz Istorii Grazhdanskoi Voyny i Interventsii, 1917-1922 [From the History of the Civil War and Intervention, 1917-1922] (Moscow, 1974), p. 208.

ple, during the Red Army's 1919-20 offensive on the Eastern Front the White forces were driven all the way from the middle-Volga to Lake Baikal, a distance of several thousand kilometers.

The Russian Civil War was also a conflict of almost unimaginable savagery, in which centuries-old hatreds and ideological fanaticism were given free rein. Prisoners taken by either side were routinely shot, while bloody reprisals and other atrocities against civilians unlucky enough to be members of a particular 'class' were all too common. The privations caused by the war and the preceding World War led to a complete breakdown in the infrastructure of a modern society. Millions of people may have starved to death during and immediately following the war, which had a deleterious effect on the army's performance as well. One participant in this struggle later recalled that of the 2.2 million casualties suffered by the Red Army from late 1918 through the end of 1920, only 800,000 were directly related to combat causes, with the remainder attributable to diseases caused by lack of food and medicine.⁴

In brief, the military problem for the Bolsheviks was to break out of their central Russian redoubt and extend their control over the outlying areas of the country. The problem for the anti-communist forces was just the opposite: to pierce the Soviet heartland from one or more of their strongholds and bring down the regime by a march on Moscow. However, both sides were hobbled by a number of serious economic, military, political and other liabilities. For example, the Whites at one time controlled territory which before the war produced 85% of the country's iron ore, 90% of the coal, three-quarters of the steel, almost all of the oil, and which housed two-thirds of its military factories.⁵ The White forces could also count on significant aid from Western governments, although what direct military intervention there was by the Allies was insuffi-

⁴ G.K. Zhukov, Vospominaniia i Razmyshleniia [Reminiscences and Reflections], 11th ed. (Moscow, 1992), I. 121-22.

⁵ M.V. Zakharov, ed., 50 Let Vooruzhennykh Sil SSSR [50 Years of the Armed Forces of the USSR] (Moscow, 1968), p. 46.

cient. The Whites also possessed greater initial military expertise, although this became less of a factor as the war progressed.

The Bolsheviks, however, were not without their advantages, which ultimately proved decisive. The Reds, although they initially occupied only a fraction of the country's territory, did hold the most populous areas and hence the larger recruiting base. They also enjoyed the inestimable benefit of interior lines, which allowed them to switch forces from one threatened front to another as the situation demanded. During the war 70% of the Soviet divisions fought on two or more fronts, with some employed on as many as five.⁶ This was in contrast to the Whites, who were never able to establish a continuous front under a single commander-in-chief, and whose offensive operations were consequently uncoordinated. The same was true in the political sphere, where the White effort suffered continuously from factionalism and the inability to articulate a coherent and popular program, as opposed to the Bolshevik leadership, which combined superior political insight and flexibility of method with utter ruthlessness of execution.

Both sides relied on a solid core of ideologically-committed volunteers, while the bulk of their forces consisted of reluctant peasant conscripts who were essentially indifferent to the political quarrels involved. Peasant loyalties were particularly weak, and large-scale desertions were common on both sides. For example, between January 1919 and December 1920 the Red Army tallied 2,846,000 cases of desertion or otherwise absent without leave.⁷ The fidelity of most soldiers was ensured by harsh discipline and consistent military success, rather than any sort of political allegiance. Indeed, so great was the reluctance to fight in Russia that the Red Army throughout relied heavily on the military skills of former

⁶ Kamenev, p. 77.

⁷ G.F. Krivosheev, ed., Grif Sekretnosti Sniat. Poteri Vooruzhennykh Sil SSSR v Voinakh, Boevykh Deistviakh i Voennykh Konfliktakh. Statisticheskoe Issledovanie [The Seal of Secrecy Removed. Losses of the USSR's Armed Forces in Wars, Combat Actions and Military Conflicts. A Statistical Study] (Moscow, 1993), p. 39.

German and Austro-Hungarian prisoners of war who had converted to communism. About 50,000 Hungarians, Czechs, Germans and other nationalities fought on the Soviet side during these years and accounted for as much as 10-11% of the Red Army's strength in late 1918.⁸ The Whites also had their foreign allies, including former Czech and Slovak prisoners of war.

Alongside the Red Army's numerical growth came a corresponding development of its organs of strategic and operational control. At the top stood the Communist Party's Central Committee, although this body played a secondary role to the more powerful Politburo. The party exercised direct control over the war effort through the Council of Worker's and Peasant's Defence, created in November 1918 and renamed the Council of Labour and Defence in April 1920. The Bolshevik leader V.I. Lenin headed this body, which served as the prototype of the 1941-45 State Defence Committee under Stalin. Direct control of military operations was exercised through the Revolutionary Military Council of the Republic (RVSR), created in September 1918. L.D. Trotskii, who was also the People's Commissar for Military Affairs, headed this body. The highest strictly military post in the Red Army was that of commander-in-chief, or *Glavkom*, who was at the same time a member of the RVSR and carried out its directives. The first commander-in-chief was I.I. Vatsetis, a Latvian and former tsarist colonel, who occupied the post from its creation in September 1918 until his removal in July 1919, as the result of a policy dispute. He was succeeded by S.S. Kamenev, also a former colonel, who served in the post throughout the remainder of the war. The working organ of the RVSR and the commander-in-chief was the RVSR Field Staff, created in September 1918 and charged with drawing up strategic plans and transmitting orders to the fronts and independent armies.

The Soviets abolished officers' ranks and other reminders of the old regime, but were quite willing to adopt several of the more

⁸ S.E. Rabinovich, Istoriia Grazhdanskoi Voiny [A History of the Civil War], 2nd ed. (Moscow, 1935), p. 63.

useful tsarist military practices, such as the front level of command. The Red Army organised its first front, the Eastern, in June 1918, which was followed over the next several months by the creation of the Northern, Southern and Ukrainian fronts, among others. Civil-war fronts, compared to those of the late empire, were quite small, numbering only about 46,000 to 147,000 men and 245-660 artillery pieces. The armies of the period were also pale reflections of their imperial predecessors and contained anywhere from 14,000 to 28,000 men and 72-216 guns.⁹

Following the successful Bolshevik coup in November 1917, both Red and White began to prepare for war. At first the new regime had to guard against the Germans, who as a result of the Treaty of Brest-Litovsk in March 1918, had occupied the Baltic states, and much of Belorussia and Ukraine. Resistance to Soviet rule was particularly strong in the south, where White troops under P.N. Krasnov and A.I. Denikin had raised the standard of revolt among the Cossacks of the lower Don and Northern Caucasus. Throughout the summer and fall of 1918, British, American, French and Japanese troops landed at various ports in the north, south and east. The greatest threat at this juncture came from a Czechoslovak force, which was advancing by rail across the middle Volga towards its destination of Vladivostok in the Far East, and which at one time threatened to link up with White forces in the south. The Soviets recovered, however, and in a six-month series of offensive operations (September 1918-February 1919), threw the Whites back nearly to the Urals and restored communications with Soviet authorities in Central Asia. The German collapse in November 1918 further strengthened the Soviet position, as the Red Army moved in to fill the vacuum left by the Kaiser's retreating army. By the beginning of 1919 the Red Army's position was better than it had been for some time, although the Whites already preparing new offensives for the spring.

⁹ I.I. Kravchenko, 'Kharakternye Cherty Nastupatel'nykh Operatsii Krasnoi Armii v Grazhdanskoi Voine' [Characteristic Features of the Red Army's Offensive Operations in the Civil War], *V-IZh* (1976), no. 3, pp. 97-98.

B. The Military Specialists

It is one of the ironies of the Russian Civil War that the most pressing military problem which the Bolsheviks faced during their first months in power was one of their own making. The party had spent much of 1917 undermining the former imperial army in order to deprive the successor Provisional Government (March-November 1917) of armed support. The Soviet leaders had not foreseen the need to create a regular army, believing that their coup would be the signal for similar acts in the West. Instead, the regime was immediately confronted not only with the prospect of civil war, but of intervention by a still-vigorous imperial Germany, and was forced to build a new army almost from scratch. This would prove to be no easy task in a country already exhausted by more than three years of war and whose huge but demoralized army was incapable of offering effective resistance to anyone.

This untenable situation compelled the Soviet government to establish the Red Army in January 1918, units of which were soon in action against German troops. These early formations usually consisted of Red Guards, the party's military arm, and other like-minded volunteers. However, this expedient failed to provide a sufficient number of recruits to meet the regime's growing military responsibilities. By May 1918 the Red Army still numbered only 306,000 men, which was far from adequate to suppress the growing White resistance in the south and east, or to fend off German probing in the west.¹⁰ Accordingly, the Soviets adopted working-class conscription that same month, which quickly raised the size of the army to 800,000 by the end of 1918, and to over five million by the end of the war.¹¹

However necessary, the army's rapid expansion and the inflation

¹⁰ N. Movchin, 'Komplektovanie Krasnoi Armii v 1918-1920 gg.' [The Manning of the Red Army, 1918-1920]. In Bubnov, Kamenev and Eideman, II. 76.

¹¹ *Ibid*, pp. 87, 89.

of its ranks with masses of untrained and semi-literate workers and peasants made the shortage of qualified officer cadres all the more acutely felt. The Bolsheviks, for so many years an underground political movement, were almost devoid of members with command or staff experience, which stood in sharp contrast to the White armies, which always contained a high proportion of experienced officers.

As the Civil War approached its first crisis in the summer of 1918 the Soviet authorities were forced by circumstances to conscript the former officers as well, although this policy was accompanied by a great deal of controversy. The Bolsheviks' anxiety about employing large numbers of former tsarist officers is understandable, given the party's ideological hostility to the officer class as a matter of principle, and the army's pre-revolutionary role as the mainstay of the autocracy. Even Lenin, who supported the policy, felt that the former officers were 'permeated throughout with bourgeois psychology', and that 9/10 of them were 'capable of treason at any opportunity'.¹² For many veteran Bolsheviks the very idea of former tsarist officers commanding units in the proletarian army was an abomination, and they waged an active campaign against this policy.¹³ Trotskii, the People's Commissar for Military Affairs and the chief proponent of employing the former officers, castigated the bigoted attitudes of these 'semi-partisans', for whom military science was 'identified with treason and treachery'.¹⁴ This bitter dispute festered throughout the remainder of 1918 and the policy was not officially adopted until the following March at the eighth party congress. However, the feelings engendered by this controversy would linger long after the war itself was over.

¹² V.I. Lenin, Polnoe Sobranie Sochinenii [Complete Works], 5th ed. (Moscow, 1958-65), XXXVIII. 142; XIIIIL. 242.

¹³ See E. Iaroslavskii, 'Kak Vossozdat' Armiiu' [How to Recreate the Army], Izvestiia (Moscow), 15 June 1918, pp. 1-2; V. Sorin, 'Komandiry i Komissary v Deistvuiushchei Armii' [Commanders and Commissars in the Field Army], Pravda (Moscow), 29 November 1918, p. 2.

¹⁴ L.D. Trotskii, Kak Vooruzhalas' Revoliutsiia [How the Revolution Armed] (Moscow, 1923-25), I. 172-73.

For their part, many of the former officers, particularly the older ones, detested the new regime, which they blamed for the collapse of the old army and the hated Brest-Litovsk peace, as well as the loss of their former privileges and authority. The latter included such 'democratic' innovations of 1917 as the abolition of ranks and saluting and the election of officers by so-called 'soldiers' committees'. As one former officer recalled, the 'overwhelming majority' of officers viewed the idea of serving in the Red Army as 'almost shameful'.¹⁵

The former officers' reasons for serving were varied and sometimes contradictory. Some served the Reds for patriotic motives, in spite of the Bolsheviks' 'internationalist' pretensions. Such feelings were certainly uppermost in the minds of those who joined during the winter of 1917-18, when a renewed German advance threatened to take Petrograd; and in the spring of 1920, following the Polish invasion. Others, albeit a distinct minority, seem to have sincerely supported the party's program, or had come to believe that the Bolsheviks represented the choice of the people.¹⁶ Others joined because they knew no other profession and could have served the Whites just as easily.

The majority, however, undoubtedly served under some duress. This pressure took several forms, the most lenient of which was Trotskii's proposal to ensconce unwilling officers in concentration camps, while Lenin threatened 'saboteurs' with shooting.¹⁷ Certainly the most barbaric measure was the war commissar's order to arrest the relatives of commanders who defected to the Whites, a practice

¹⁵ M.D. Bonch-Bruevich, Vsya Vlast' Sovetam [All Power to the Soviets] (Moscow, 1957), p. 284. The author, a former general-major, was one of the first high-ranking officers to serve in the Red Army. His brother was the veteran Bolshevik V.D. Bonch-Bruevich.

¹⁶ One of these was Gen.-Maj. A.I. Verkhovskii, a former war minister in the Provisional Government. He joined the Red Army in 1919, after spending several months in prison for plotting against the state. For an account of his 'conversion', see his Na Trudnom Perevale [At a Difficult Crossing] (Moscow, 1959), pp. 415-20.

¹⁷ Trotskii, I. 225; Lenin, L. 141.

which foreshadowed one of the more odious practices of the Stalin era.¹⁸ In such an atmosphere no former officer was above suspicion, and even the Red Army's first commander-in-chief, I.I. Vatsetis, was briefly arrested in 1919 on charges of treason.¹⁹ Evenly the slavishly loyal Bonch-Bruevich later wrote that 'Many tsarist generals and officers became victims of the red terror', although he excused the repression as justified by the Whites' actions.²⁰

Under these circumstances, one of the party's chief tasks was to assert and maintain its authority over this potentially-treasonous group. The Bolsheviks achieved this through the institution of political commissars, an expedient of radical regimes since the French Revolution. Political commissars had served in the Russian army since the February Revolution of 1917, and following their seizure of power the Bolsheviks immediately set about expanding this system and bringing it under their control. In April 1918 the All-Russian Bureau of Military Commissars was established, which became the RVSR Political Directorate the following year. Such future party notables as K.E. Voroshilov, S.M. Kirov, N.S. Khrushchev, V.V. Kuibyshev and J.V. Stalin gained considerable experience as 'the eyes and ears' of the party during this period.

Military councils (*voennye sovety*) were created at the front and army level to ensure party control, while individual commissars were assigned to units down to the battalion level. The military councils generally consisted of two political commissars and the commander, who, at this level was almost always a former officer. In theory, the commander was to enjoy operational freedom, while the commissars answered for the unit's political loyalty. In practice, however, the commanders' prerogatives were often encroached upon by overzealous commissars intent on ferreting out 'treason' and inter-

¹⁸ The text of this decree is reprinted in Trotskii, I. 153.

¹⁹ L.D. Trotskii, *Stalin*, trans. C. Malamuth (New York, 1941), pp. 315-16.

²⁰ Bonch-Bruevich, p. 283.

fering in purely military matters. The key to the commissar's power was the provision that no operational directive could be implemented without his countersignature. The ambiguity inherent in this arrangement became fertile ground for mischief-making by any ambitious commissar, as happened on a number of occasions. The system of dual command and the insecurity it bred amongst the former officers was one of the prime causes of so much of the red tape and inefficiency in the Red Army's conduct of operations during the war.²¹

One of the most egregious examples of political interference in the former officers' command functions took place in the summer of 1918. This incident is important not only as an illustration of the problems which the former officers encountered in their work, but as revealing the attitudes of two men, Stalin and Voroshilov, whose attitudes and policies would shape the Red Army for a generation.

Stalin arrived in Tsaritsyn (Stalingrad/Volgograd) in June 1918 to supervise the requisitioning of the area's grain supplies for Russia's urban areas. The city was threatened at the time by Krasnov's Cossack troops, who were attempting to cut the Soviets' Volga River lifeline and link up with the White forces in Siberia. Stalin, although he had not been delegated military powers, used his political position (at the time he was a member of the party's Politburo and Central Committee, as well as people's commissar for nationalities) to usurp the city's defence from the military authorities. One of his first acts was to arrest the commander of the North Caucasus Military District, the former officer Gen.-Lt. A.E. Snegarev, and several of his staff on charges of treason. According to some emigre sources, Stalin later ordered the staff officers placed aboard a barge, which was towed to the middle of the Volga and sunk.²²

²¹ E. Shilovskii, 'O Tekhnicheskoi Storone Upravleniia Armii v Grazhdanskuiu Voinu' [On the Technical Aspects of Army Control in the Civil War], Voennaia Nauka i Revoliutsiia [Military Science and Revolution] (1922), no. 2, pp. 13-27.

²² Rapoport and Alexeev, p. 128; A. Antonov-Ovseenko, The Time of Stalin, trans. G. Saunders (New York, 1981), p. 8. Although these authors cite no evidence for their claim, the incident was obliquely confirmed by Soviet sources during the dictator's lifetime. See E. Iaroslavskii, ed.,

The extent of Stalin's enmity towards the former officers may be gathered from two letters written to Lenin during this period. In the first letter, Stalin denounced the officers as 'cobblers' (a slang term meaning 'idiots'), and blamed them for the city's defence problems. In another letter, Stalin complained that the former officers were actually allies of the Cossacks and Anglo-French 'interventionists'.²³ As the letters indicate, Stalin's penchant for seeing 'spies' and 'saboteurs' everywhere was already highly developed. The dictator's hostility towards the former officers was confirmed years later by his lieutenant and eventual successor, Khrushchev. He wrote that following the Civil War 'Stalin used to enjoy telling us that he refused to have anything to do with the bourgeois officers whom Trotskii dispatched to Tsaritsyn and that they invariably turned out to be traitors'. Stalin, according to this source, remained a 'specialist eater all his life'.²⁴

Stalin ruled virtually unhindered at Tsaritsyn for two more months, until mid-September, when the Southern Front was established, embracing the area along the lower Don and Northern Caucasus. Its military council consisted of Stalin, the former general-major P.P. Sytin, Voroshilov, and S.K. Minin. This was an impossible arrangement, given the personalities involved and the political members' ingrained mistrust of the former officers. Trotskii called Voroshilov 'The man who most detested the military specialists ..., not overly intellectual but shrewd and unscrupulous'. Minin, he said, 'suffered from a blinding phobia of all tsarist officers'.²⁵ The military council was continually torn by disagreements over command,

Vos'moi S"ezd RKP(b) [The Eighth RKP(b) Congress] (Moscow, 1933), p. 148.

²³ I.V. Stalin, Sochineniia [Works] (Moscow, 1946-52), IV. 118, 124.

²⁴ N.S. Khrushchev, Khrushchev Remembers, ed. and trans. S. Talbot (London, 1971), pp. 18, 20.

²⁵ Trotskii, Stalin, pp. 289-90.

supplies, and even the location of front headquarters.²⁶ The situation eventually became so intolerable that Stalin was recalled to Moscow in October, while Voroshilov was transferred to Ukraine two months later.

Although Stalin and his allies had been temporarily dispersed, they would be reunited with even more disastrous consequences in the war with Poland (see section D). Their defeat had been by no means final, and their enmity, if anything, towards Trotskii and the former officers had increased. This group (Voroshilov, S.M. Budennyi and E.M. Shchadenko) would later become the nucleus of the Stalinist faction within the army, which was to have tragic consequences for specialist and non-specialist alike.²⁷

For all of the commissars' vigilance, however, there were a number of cases of real treason by former officers. The most spectacular of these was that of former Lt.-Col. M.A. Murav'ev, the first commander of the Eastern Front. Murav'ev, a Socialist-Revolutionary, joined his party's disastrous uprising against the Bolsheviks in July 1918, but failed and was killed in a gun battle. A similar fate awaited all those who betrayed Soviet power, or who failed to carry out orders with sufficient vigor; a policy which was applied to specialist and commissar alike. Indeed, Trotskii's policy of executing commissars for their units' failures and his supposed favoritism towards the former officers soon became part of the growing indictment against him by many of the army's political officers. One of these later reported that by the time of the eighth party congress the majority of military delegates, who were presumably, for the most

²⁶ For a description of these events, see I. Kolesnichenko, 'K Voprosu o Konflikte v Revvoensovete Iuzhnogo Fronta (Sentiabr'-Oktiabr' 1918 Goda)' [On the Question of the Conflict in the Southern Front's Revolutionary Military Council (September-October 1918)], V-IZh (1962), no. 2, pp. 39-47.

²⁷ One Soviet historian has recently claimed that Voroshilov 'maintained his prejudice and dislike of the old army's former officers and fully displayed these during the massive Stalinist repressions against the Red Army's command staff in 1937-38'. See V.M. Ivanov, Marshal M.N. Tukhachevskii [Marshal M.N. Tukhachevskii] (Moscow, 1990), p. 32.

part political officers, were personally opposed to Trotskii.²⁸

In spite of these difficulties the policy of recruiting the former officers was a great success. Beginning with the first partial mobilization of June 1918, and continuing through the end of the war in November 1920, nearly 75,000 former officers passed through the Red Army's ranks, although the exact figure remains in dispute.²⁹ This total accounted for 56% of the 130,914 Red Army commanders of all backgrounds and nearly 30% of the pre-revolutionary officer corps (career and wartime officers), according to the most reliable source. Those former officers who served in the White armies accounted for some 40% (100,000) of the total, while the remaining 30% (75,000) managed to avoid service on either side by going into hiding or emigrating.³⁰

The Red Army's haul of former officers, despite the small overall percentage, was nevertheless impressive in terms of quality, and included a significant number of those formerly attached to the tsarist General Staff apparatus--the army's administrative and intellectual elite. A White source has calculated the number of General Staff officers at the end of 1917 at about 1,500, of whom 319 (21%) eventually served in the Red Army, although this figure is

²⁸ S.I. Gusev, Grazhdanskaia Voina i Krasnaia Armiia [The Civil War and the Red Army] (Moscow and Leningrad, 1925), pp. 20, 214-15; S.I. Aralov, Lenin vel Nas k Pobede [Lenin led Us to Victory] (Moscow, 1962), p. 99.

²⁹ Kavtaradze (p. 176) puts the figure at 73,311. This is indirectly supported by another source which calculates the Red Army's command staff at the end of 1920 at 217,000, of which 34% (73,780) were former officers. See Zakharov, p. 159. The most commonly cited figure is that of 48,409 former officers drafted between 12 June 1918 and 15 August 1920. See N. Efimov, 'Komandnyi Sostav Krasnoi Armii' [The Red Army's Command Element]. In Bubnov, Kamenev, Eideman, II. 95. However, the author excludes from this figure the large number of officers who volunteered before June 1918 and the former White officers who subsequently joined the Red Army, as well as those called up between 15 August and the end of the war. Kavtaradze (p. 175) calculates the number of officers in the first two categories alone at 20,000. Two emigre sources do nothing more than to repeat the standard figure of 48,409. See Zaitsov, p. 183; N.V. Piatnitskii, Voennaia Organizatsiia Gosudarstvennoi Oborony SSSR [The Military Organization of the State Defense of the USSR] (Paris, 1932), p. 116.

³⁰ Kavtaradze, pp. 176-77.

disputed by a number of other sources.³¹

These officers had an especially important role to play in resurrecting the country's system of higher military education, where their knowledge of the arcana of staff work and military administration was particularly valuable. Their efforts were centred in the new Academy of the RKKA General Staff, which opened its doors in December 1918. This institution was the successor to the defunct imperial staff academy, which had led a curious twilight existence amidst the turmoil of war and revolution, and had continued to graduate students as late as the spring of 1918. The new academy's first chief was former Gen.-Maj. A.K. Klimovich, who was succeeded the following year by Snesev, who was fortunate to be alive following his run-in with Stalin.³² Among the teaching staff were such former General Staff officers as N.A. Danilov, V.F. Novitskii, N.A. Suleiman, A.A. Neznamov, and A.A. Svechin. Neznamov read the course on strategy, as he had done in prewar days, and Svechin taught the history of military art. These officers, as the living repositories of what was best in the Russian military tradition, no doubt had a great impact on their eager but untutored pupils, among the first of whom were the future marshals K.A. Meretskov, V.D. Sokolovskii, I.V. Tiulenev, and the outstanding operational theorist of the interwar period, V.K. Triandafillov.³³

³¹ A. Baiov, 'General'nyi Shtab vo Vremia Grazhdanskoi Voiny' [The General Staff During the Civil War], *Chasovoi* [The Sentry] (1932), no. 84, pp. 3-4. Soviet sources, not surprisingly, tend to place the figure somewhat higher. Kavtaradze (p. 196) maintains that of 1,932 General Staff officers, 639 (33%) served the Reds, while another author states that the number varied from 526 (36%) to 407 (28%) of a total pre-revolutionary General Staff complement of 1,450. See L.M. Spirin, 'V.I. Lenin i Sozdanie Sovetskikh Komandnykh Kadrov' [V.I. Lenin and the Creation of Soviet Command Cadres], *V-IZh* (1965), no. 4, pp. 12-13. However, both Soviet authors include post-revolutionary General Staff academy graduates, which inflates the percentages.

³² Even in the relatively peaceful setting of the academy, Snesev and the other specialists were still subjected to persecution. One student later recalled that the former officers were often used as hostages and 'were regularly put behind bars each time the internal situation took a turn for the worse'. See A. Barmine, *Memoirs of a Soviet Diplomat*, trans. G. Hopkins (London, 1938), p. 108.

³³ T.P. Bulgakova, ed., *Akademiia General'nogo Shtaba* [The General Staff Academy], 2nd ed. (Moscow, 1987), pp. 12, 14, 17.

Due to the widespread opprobrium attached to the word 'officer' at the time, the first officer volunteers were called variously 'military experts', 'military consultants', or 'technical leaders'. It was only from the spring of 1918 that the term 'military specialist' (*voennyi spetsialist*) became standardized in the army.³⁴ A recent Soviet source defines 'military specialist' as 'a general, admiral, officer or bureaucrat of the old Russian army and fleet, recruited for service in the Soviet army and navy during the Civil War and foreign intervention in Russia'.³⁵ However, this definition lacks precision and the importance of the term requires a closer examination.

First of all, the so-called 'military bureaucrats' should be eliminated from the equation as having nothing in common with those officers serving in line, staff or pedagogical positions. Secondly, one must exclude from this group the large number of wartime officers (approximately 90% of this total) who were commissioned from the ranks or otherwise made officers during the First World War.³⁶ And while their experience was certainly greater than that of the military bureaucrats, it would be a gross error to equate the wartime officers' level of practical and theoretical (particularly the latter) training with that of the career officers. Despite their educational shortcomings, however, many wartime officers went on to highly successful careers in the postwar Red Army. Among these were F.I. Tolbukhin, V.K. Triandafillov, I.E. Petrov, I.P. Uborevich, A.I. Antonov and A.M. Vasilevskii.

Qualitative judgements concerning the small number of former

³⁴ Kavtaradze, p. 13.

³⁵ A.A. Grechko, ed., Sovetskaia Voennaia Entsiklopediia [Soviet Military Encyclopedia] (Moscow, 1976-80), II. 274.

³⁶ Kavtaradze (p. 222) calculates the number of wartime officers at more than 65,000 of nearly 75,000 officers recruited overall. This view is partially supported by Voroshilov, who pointedly excluded from the category of specialist the lowest-ranking junior officers, the *praporshchiki*, an exclusively wartime rank. See his *Stat'i i Rechi* [Articles and Speeches] (Moscow, 1937), p. 227. However correct, Voroshilov's well-known antipathy towards the military specialists probably drove him to minimize their contribution.

career officers who served in the Red Army must also be made, for the differences in training and education within this group were as profound as those separating them from the wartime officers.³⁷ The higher officers' ranks (general-field marshal, general, general-lieutenant, general-major) would have been overwhelmingly represented by men who had graduated from the old General Staff Academy and/or who had commanded operational-level formations, or who had served in field staffs at a corresponding level.³⁸ Among this group the Soviets managed to recruit such operational practitioners and theorists as Brusilov, A.A. Samoilov, Svechin, A.I. Verkhovskii, P.P. Lebedev and Mikhnevich.

A slightly larger group consisted of those mid-level officers (colonels and lieutenant colonels) who threw in their lot with the Bolsheviks.³⁹ A number of these officers had attended the General Staff Academy before the World War, particularly during the relatively innovative period between 1906 and 1912. While these officers lacked the generals' command and staff experience at the operational level, they were probably less conservative and more open to new ideas; necessary qualities in the radically different conditions of the Civil War and a new political order. In this respect, they may reasonably be compared to those middle-ranking Reichswehr officers (Guderian, von Manstein, etc.) whose ideas profoundly influenced the German army after 1933. Among this group were such notable commanders and staff officers as Vatsetis, Kamenev, A.I. Egorov, Shaposhnikov, A.I. Gotovtsev, and F.P. Shafalovich.

The numerous group of lower-ranking officers (captain, staff-captain, lieutenant, second lieutenant) was a potentially rich source

³⁷ The exact size of this group is difficult to determine, and estimates vary. Kavtaradze (p. 222) states that there were less than 10,000 former career officers in the Red Army. Another source puts the figure at 6% (13,020) of 217,000 Red Army commanders. See Zakharov, p. 159.

³⁸ Kavtaradze (p. 178) claims that 775 former generals served the Reds. Another Soviet source puts the figure at more than 1,000. See Fediukin, p. 39.

³⁹ Kavtaradze (p. 178) claims that 980 former colonels and 746 lieutenant colonels served in the Red Army.

of future commanders, even though their overall level of theoretical preparation was little different from that of the wartime officers. These officers' experience had been entirely at the tactical level, and only a very few had attended the imperial General Staff Academy, mostly in accelerated courses during 1915-18. Nevertheless, this inexperienced group was to furnish many of those who would later occupy important command positions in the wartime and postwar Red Army, and who would make a significant contribution to operational theory as well. These officers included A.I. Kork, N.E. Varfolomeev, E.A. Shilovskii, and M.N. Tukhachevskii.⁴⁰

At first glance the military specialists' (in the narrow sense of the term used here) overall contribution seems quite small, no more than 7% of the whole, compared with the much larger proportion of wartime officers, former NCOs and others who constituted the Red Army's command element during the Civil War. However, in qualitative terms, the specialists' influence was far greater than their numbers would indicate and ultimately decisive to the conduct and outcome of the war. This was due to the former career officers' virtual monopoly of the army's most important administrative, command and staff positions, which could only be filled by those with the requisite skills. This is was particularly true at the strategic-operational level, where the chief operations were conceived and conducted.

For example, both commanders-in-chief (Vatsetis and Kamenev) were former colonels and graduates of the imperial General Staff Academy. Both finished the academy during its most innovative period between 1906 and 1912. The commander-in-chief's executive organ, the RVSR Field Staff, was headed successively by the former general-majors N.I. Rattel', F.V. Kostiaev, Bonch-Bruevich and Lebedev.⁴¹

⁴⁰ Tukhachevskii did not attend the General Staff Academy, having been commissioned a second lieutenant only in July 1914. However, a recent biographer states that Tukhachevskii was already familiar with the works of Leer and Mikhnevich. See Ivanov, p. 24.

⁴¹ Kavtaradze, pp. 109, 238, 243, 245-46, 251; S.S. Khromov, ed., Grazhdanskaia Voina i Voennaia Interventsiia v SSSR. Entsiklopediia [The Civil War and Military Intervention in the USSR. An Encyclopedia] (Moscow, 1983), pp. 71, 87, 152, 251, 289, 319.

These officers provided a much-needed leavening of professionalism at a critical command juncture.

The situation was little different at the front level, where the specialists held the great majority of command and staff positions. Of the 20 men who commanded the chief fronts between 1918 and the end of 1920, 16 (80%) were military specialists, while the remainder were professional revolutionaries, of whom M.V. Frunze demonstrated the greatest military capabilities. Ten (50%) of the front commanders were graduates of the old staff academy, and two (10%) had completed the academy course between 1906 and 1912. Of the 28 men who served as the fronts' chief of staff, 27 (96%) were documented regular officers. Of this group, 26 (93%) had graduated from the imperial General Staff Academy, which was proof of the Bolsheviks' high opinion of their professional training. Moreover, 12 (43%) of the staff officers were graduated between 1906 and 1912.⁴² Thus of the 46 men who occupied one or both of these positions, 41 (89%) can be shown to have been former career officers, while 34 (74%) were graduates of the old staff academy. Of this number, 14 (30%) completed the course between 1906 and 1912.

At the army command and staff level the dominance of the military specialists remained strong, if somewhat reduced. Of the 85 men who commanded major armies between 1918 and the end of 1920, 66 (78%) can be shown to have been former career officers, although the actual percentage is probably higher, due to incomplete information. Of these, 39 (46%) were graduates of the imperial General Staff Academy, with 11 (13%) graduating between 1906 and 1912. In all, 130 men occupied the post of chief of staff in these armies, of which 86 (68%) were documented military specialists, although once again complete information is lacking. Of this number, 77 (59%) were graduates of the tsarist staff academy, although this figure is almost certainly too low. Of these, 22 (17%) came from the 1906-12

⁴² Kavtaradze, pp. 109, 207-08, 236-37, 239-46, 248-54, 256, 259-62; Khromov, pp. 39, 48, 51, 68, 87, 117, 149, 152, 205, 216, 245, 251, 263, 289, 316, 319, 362, 366, 394, 412, 424, 451, 483, 521, 527, 555, 575, 605-06, 612, 631, 666, 675-76, 678; Azovtsev, et al, IV. 529-33.

classes.⁴³ In all, 182 men held one or both posts, of which 89 (49%) were former career officers. Of these, 89 (49%) had graduated from the old General Staff Academy, with 25 (14%) having completed the academy course during 1906-12.

These figures constitute overwhelming proof of the military specialists' decisive contribution to the planning and conduct of the Red Army's operations during the Civil War. This is hardly to be wondered at, as the influence of the former tsarist officers could only have been profound, given the army's primitive state during these years. This circumstance made it relatively easy to graft the tsarist army's theory and practice of conducting operations upon the *tabula rasa* of the Red Army, which did not suffer from the weight of the past. In fact, it was this very combination of messianic revolutionary enthusiasm, tempered by the positive aspects of the old Russian military tradition and the peculiar conditions of the Civil War which created the conditions for a specifically Soviet approach to operations.

As to the larger question of the specialists' contribution to the Reds' ultimate victory, such judgements often have as much to do with the observer's political loyalties as anything else. For example, two Soviet historians have gone so far as to claim that the military specialists 'were never the leading force of our command cadres, and did not play a decisive role' in defeating the Whites.⁴⁴ The opposing view, not surprisingly, was held by the White general A.I. Denikin, who while he considered the specialists traitors to their country and class, nevertheless believed that the 'Red Army was built exclusively by the brains and experience of the 'old tsarist

⁴³ Kavtaradze, pp. 16, 109, 145, 193, 199, 206, 208-09, 216-18, 236-39, 241-62; Khromov, pp. 22, 29, 40, 48, 51, 65, 78, 86-87, 115, 118, 131-32, 138, 140-41, 149, 152, 154, 172-73, 186, 205, 219, 249, 260-62, 288, 311-12, 316, 318-19, 331, 343, 345, 352, 354, 366, 394, 411, 421, 443-45, 451, 486, 521, 530-31, 536, 544-555, 568, 594, 597, 601, 606-07, 631, 633, 636, 651, 653-56, 661, 663-65, 668-69, 679; Azovtsev, *et al*, IV. 533-44.

⁴⁴ D.A. Voropaev and A.M. Iovlev, Bor'ba KPSS za Sozdanie Voennykh Kadrov [The CPSU's Struggle for the Creation of Military Cadres], 2nd ed. (Moscow, 1960), p. 41.

generals'.⁴⁵ However, Lenin, who certainly cannot be accused of any favoritism towards the White cause, nevertheless believed that the Red Army had been able to win only with the aid of the former officers.⁴⁶

C. Civil War Operations, 1919-1920

By early 1919 the White forces in the East had recovered from their defeats of the previous autumn and were once again ready to resume the advance on Moscow. This time they were led by Admiral A.V. Kolchak, who had seized control of the anti-Bolshevik movement in Siberia from more democratic elements the previous November. By the beginning of the offensive in early March, Kolchak's forces numbered some 113,000 men and more than 200 guns against 111,000 Red troops and 379 guns.⁴⁷ The White forces were organised into the Siberian and Western armies in the north, and the 'Southern Army Group', Orenburg and Ural'sk armies in the south. Opposed to them were the Soviet troops of the Eastern Front under S.S. Kamenev, which were divided from north to south into the Third, Second, Fifth, Turkestan, First and Fourth armies. These forces occupied an 1,800-kilometer front which stretched from the forests north of Perm' to the Caspian Sea.

The White advance began on 4 March along a broad front from Perm' to Orsk, with the main effort concentrated along a 450-kilometer front from Perm' to Ufa. The Whites apparently were seeking to link up with allied forces near Kotlas and in the Northern Caucasus simultaneously, which, if correct, represented a dangerous dispersion of scarce manpower. Nevertheless, this assault was immediately successful against the scattered Soviet forces in the area, which had been neglected in favor of the armies currently fighting in Ukraine.

⁴⁵ Denikin, Ocherki, III. 144.

⁴⁶ Lenin, XL. 199.

⁴⁷ Bubnov, Kamenev and Eideman, III. 172-73.

Ufa fell on 14 March, while to the south Kolchak's forces severed the tenuous Soviet link with Central Asia and threatened to cut off the Red garrisons at Orenburg and Ural'sk. The danger was particularly great in the centre, where Gen. M.V. Khamzhin's Western Army was pressing Tukhachevskii's Fifth Army back to the Volga south of the Kama River. By mid-April Kolchak's forces had succeeded in opening a large gap between Tukhachevskii and the Second Army and threatened to break through to the river in the direction of Simbirsk and Samara.

Once the scale of the White advance became apparent the Soviets quickly set about preparing a counterattack. The most visible response was to split the Eastern Front into two semi-independent groups for greater ease of control: the Southern (Fourth, First, Turkestan and Fifth armies), commanded by the veteran Bolshevik M.V. Frunze, and the Northern (Second and Third armies), under the former tsarist colonel V.I. Shorin.

The energetic Frunze immediately set about drawing up plans for a counterstroke against the exposed southern flank of Khamzhin's widely-scattered forces which were nonetheless pressing inexorably towards the Volga. His initial plan foresaw the creation of a powerful infantry-cavalry strike force to attack the enemy's left flank and pushing him back to the north. However, numerous transport difficulties slowed the concentration of this force, and the necessity of shoring up Tukhachevskii's collapsing army soon forced Frunze to send part of his planned strike force north to reinforce the Fifth Army's left wing. Frunze, in a message to Kamenev before the start of the counteroffensive, outlined the operation's goals, which included launching a concentrated attack between the widely-separated White forces in the Buguruslan-Zagladino area, 'for the purpose of separating these corps and routing them in detail'.⁴⁸ To compensate for the loss of part of his strike force, Frunze directed Fifth Army to attack towards Buguruslan and Bugul'ma, while at the same time units of the First Army's left flank would pin down enemy forces and

⁴⁸ Frunze, I. 176.

cover the advance from the right.

Frunze resorted to a good deal of internal regrouping to create his striking force. His final arrangements for the offensive are an excellent example of employing the maximum concentration of force at the point of decision, even given the watered-down version which he was forced to adopt. Of the approximately 70,000 troops under his command at the end of April, Frunze managed to concentrate for the attack some 49,000 men and 152 guns along a 200-kilometer front, leaving the remaining 700 kilometers of his front to be manned by a mere 23,000 troops and 70 guns.⁴⁹ Frunze, by ruthlessly scraping together men and materiel from the less active sectors, was able to achieve by late April a hefty superiority over Khanzhin's army, the leading units of which, due to a combination of desertions and combat losses, had shrunk to between 18,000 and 22,000 men.⁵⁰

Frunze was so concerned by the White's continued progress against Tukhachevskii's left flank in the Sergievsk-Chistopol' area that he ordered his strike group to attack on 28 April, before it had fully concentrated. The offensive's opening phase was highly successful, as the Soviet units flowed easily into the 60-kilometer gap between the White corps, which was screened only by detachments. Resistance was therefore minimal at first, and by 30 April leading units of the Fifth Army had cut the Ufa-Samara railroad east of Buguruslan and were poised to continue the drive to the northwest in the direction of Belebei. Meanwhile, unmindful of the threat to his left, Khanzhin pressed on to Samara, which was practically undefended. The continuation of this advance would have soon put the Whites in the strike group's rear, even as the latter strove to cut them off. Kamenev therefore ordered Frunze to shift the axis of the advance from the northeast to the north (Turkestan Army) and northwest (Fifth Army), in the general direction of Bugul'ma.⁵¹ At a

⁴⁹ Rotmistrov, I. 398.

⁵⁰ Bubnov, Kamenev and Eideman, III. 190.

⁵¹ Azovtsev, et al, II. 663.

single stroke Frunze's deep flanking movement was reduced to an attempt at a shallow envelopment of the leading White units, while the movement's former spearhead, the Turkestan Army, became, in effect, the flank guard for Fifth Army's right wing.

Frunze's understandable irritation with his superiors' interference undoubtedly increased due to personnel changes in the Eastern Front command caused by political intrigues in Moscow. On 5 May Kamenev was replaced by A.A. Samoilov, a tsarist major-general. P.P. Lebedev, also a former major-general, became his chief of staff. Samoilov's first order of business upon arriving at front headquarters in Simbirsk was to remove the Fifth Army from Frunze's control and subordinate it directly to himself. This move caused Tukhachevskii to later claim that Samoilov's interference 'completely ruined the brilliant beginning of our counteroffensive and allowed the Whites to put their retreat in order'.⁵²

The second half of the Buguruslan operation saw considerable heavy fighting as the Soviets continued to press the Whites from the south, southwest and west. Khanzhin correctly guessed the Soviets' intention to cut him off west of Bugul'ma, and began to withdraw his troops through the town before the Reds could close the trap. The Whites, in order to keep their lifeline open, made a number of spirited counterattacks north of Buguruslan in early May. The Soviets successfully fended these off, but were delayed just long enough to allow the Whites to extricate their troops through Bugul'ma ahead of the Fifth Army. With the town's fall on 13 May the operation ended.

The ensuing Belebei operation constituted the missing second half of Frunze's original plan for a drive to the northeast, which had been aborted by Kamenev's reorienting of the strike group towards Buguruslan. The shallow and inconclusive movement which resulted made an advance on Belebei the logical next step in the unfolding Soviet counteroffensive towards Ufa. Indeed, the first clashes

⁵² Tukhachevskii, II. 224.

preceding the counteroffensive's next phase were already taking place north and west of the town even as the Buguruslan operation was drawing to a close.

However, Frunze's plan for reviving the advance to the north-east was very nearly upset by Samoilo's growing concern over the continuing White advance north of the Kama River. Here, Czech Gen.-Lt. R. Gajda's Siberian Army was slowly pushing back the Soviet Second and Third armies on Viatka and Kazan'. At this point the front commander began to entertain the vague notion of switching Tukhachevskii's army northward across the Kama against the enemy left flank. Frunze quickly saw that the diversion of the now-powerful Fifth Army away from the Belebei-Ufa axis would leave his remaining forces too weak for further offensive operations, and took his case directly to Samoilo. Frunze, in a heated exchange with the front commander on 12 May, insisted on a deep turning movement by Fifth Army in order to cut off the enemy's retreat to the east.⁵³ And although Frunze failed to reassert his control over the Fifth Army, he did convince Samoilo to allot him two divisions to continue the attack.

Frunze's plan aimed at the destruction of the White troops barring the way to Ufa. Due to the fighting for Buguruslan and Bugul'ma and the removal of Fifth Army from Frunze's control, most of what remained of the original striking force now lay along the Ik River on the Southern Group's extreme left. Frunze accordingly ordered the First and Turkestan armies to move northeast along the Ufa-Samara railroad in order to pin down the enemy forces south of Belebei, while a mixed infantry-cavalry force was to attack north of the city 'for a deep envelopment in order to cut the enemy off from his communications with Ufa'.⁵⁴

The Soviets moved out on 15 May. They advanced slowly, however, although speed was essential if the railway was to be cut ahead

⁵³ Azovtsev, et al, II. 673.

⁵⁴ Frunze, I, 187.

of the retreating enemy. The White units slowly fell back on Belebei and Soviet troops entered the town on the 17th. Further north, Red units closed on the town from the west, although too slowly to block the Whites' retreat. Although Frunze had pushed the Whites back some distance during the short offensive, the Belebei operation must be regarded as a distinct disappointment for the Soviets. Once again, the Whites had slipped away and still barred the road to Ufa, although they were showing signs of tiring of the fight.

Undaunted, Frunze pressed his offensive, and once again singled out the Turkestan Army to make the main assault. Cavalry and infantry would spearhead the latest effort, designed to push the Whites northeast across the Belaia River. Once across this formidable barrier south of Ufa, elements of Frunze's forces would move directly on Ufa from the south, while the movement's flanks would be covered by others advancing on Birsik and Sterlitamak. For the operation, Frunze could count not only on a reasonable superiority in men and materiel, but on spreading defeatism within the White ranks as well, where some units were already showing an alarming tendency to 'turn their coats' when pressed.

Once the operation got underway on 25 May the Turkestan Army, subordinated for the duration directly to Frunze, had little trouble in achieving its preliminary objective of closing to the Belaia along the entire front, as the outnumbered Whites elected to fall back and make a stand along the river. Further to the north there was heavy fighting along Fifth Army's front, where the Whites suffered heavy losses in a vain attempt to halt the Soviet advance. This victory had important consequences for the Ufa operation by eliminating a potential threat to Frunze's left and allowing him to move up infantry reserves to assist the crossing south of Ufa. By the time the Turkestan Army closed to the river in early June strong forces were available for crossings north and south of the city.

South of Ufa heavy White artillery fire and the river's swift current foiled the southern wing's initial attempts to cross. The Soviets were more fortunate further north, where as early as 4 June

rifle units were able to secure a bridgehead below the city. By 8 June Frunze had ferried an entire division to the eastern bank in an improvised crossing, as further Red attempts to force the river south of Ufa were beaten back. The White command was alive to the danger that the northern crossing represented and launched repeated and bloody counterattacks against the Soviet bridgehead over the next two days. These attacks, however, led only to heavy casualties on both sides and an overall weakening of the White defence. The Soviets finally broke out of their bridgehead on 9 June and captured Ufa the same day. Meanwhile, Soviet cavalry and infantry units persisted in their efforts to cross the river south of the city, succeeding only on 14 June. Red units continued to push to about 50 kilometers east of Ufa, where a shortage of troops and supply difficulties forced Frunze to call a brief halt in operations.

Following the capture of Ufa, the Eastern Front's story is quickly told, as the Soviets resumed their advance against Kolchak's disintegrating armies in June. The Perm', Zlatoust, Ekaterinburg and Cheliabinsk operations in June-August cleared the important Urals industrial region of White forces and set the stage for the conquest of Siberia. The Petropavlovsk, Omsk, Novonikolaevsk and Krasnoiarsk operations (August 1919-January 1920) completed the destruction of the White armies and brought the Soviets as far east as Lake Baikal, where they were halted by the presence of foreign troops. Although more than two years of fighting remained before Soviet troops actually reached Vladivostok, the events of 1919 effectively ensured the triumph of Soviet power in Siberia and the Far East.

But it is the Soviet conduct of the Buguruslan, Belebei and Ufa operations which constitutes the most interesting period, from the point of view of the operation's development. The six-week period of almost non-stop fighting began with the Reds everywhere falling back and ended with the initiative firmly in their grasp. During the counteroffensive the Soviets advanced from 350-400 kilometers along a front several hundred kilometers in breadth. The most signal characteristic throughout was the Soviets' use of maneuver and their

frequent reliance on flank attacks aimed at the enemy's communications. In all three operations, Frunze, after first pinning down part of the enemy front, launched turning movements against the Whites' flanks. That these operations often fell short of expectations was primarily due to the Reds' overall insufficiency of force, their low mobility, and the disruptive changes in the Eastern Front's command and organisation.

The Soviets were quite fortunate that the time of greatest danger in the East coincided with a period of relative quiet along the other main theatre of war in the South. Here the Bolsheviks had taken advantage of the Austro-German collapse in the autumn of 1918 to occupy almost all of Ukraine and the Crimea. The only White force remaining to oppose them was Gen.-Lt. A.I. Denikin's 'Armed Forces of Southern Russia' (Volunteer, Don and Caucasus armies), based primarily on the Cossack populations of the lower Don and Northern Caucasus, and on those officers who had managed to escape south following the Bolshevik coup. Denikin's forces began to move in strength only in May 1919, after the tide had turned against Kolchak, although the Reds were still preoccupied by the situation in the East. The White advance in southern Russia was aided by Cossack uprisings in the Soviet rear, as well as by Allied military support now streaming into the various Black Sea ports. Denikin's forces successively defeated the qualitatively inferior Soviet forces of the Ukrainian and Southern fronts, and by early autumn were deployed along a huge arc stretching from Zhitomir through Chernigov, Orel, Voronezh, Tsaritsyn and Astrakhan'. Elsewhere Polish troops menaced the Soviets in Belorussia, while further north Gen. N.N. Iudenich advanced for the second time on Petrograd from his Estonian base.

However, much as Kolchak, Denikin's forces rested upon an extremely weak political-military base, which collapsed almost immediately upon the first serious reverses. Denikin claimed to have had in the early autumn only 98,000 troops to man his 1,800-kilometer front against a Bolshevik force which he estimated at between 140,000

and 160,000 men.⁵⁵ Nor were Denikin's forces of a uniformly high quality. The summer's rapid advance had carried the Whites far from their anti-communist base and had necessitated the drafting of large numbers of reluctant Russian and Ukrainian peasants, which diluted the army's strong officer base and led to an overall decline in White military efficiency; heretofore their strongest suit. Finally, Denikin's forces were greatly hampered by bands of semi-anarchist peasants in their rear under N.I. Makhno, who hated the Whites even more than the Reds. At the height of the October fighting Makhno's forces numbered 28,000 infantry and cavalry, supported by 50 guns and 200 machine guns, and even briefly threatened Denikin's headquarters at Taganrog.⁵⁶ The necessity of dealing with this and other internal threats forced the White command to divert significant numbers of men from the front at critical moments, and so helped pave the way for their ultimate defeat.

The Soviet high command, in response to the rapid White advance, on 13 September split off from the Southern Front the Ninth, Tenth and Eleventh armies to form a new Southeastern Front, under the command of the military specialist V.I. Shorin, to man the line south of Voronezh. What remained of the Southern Front (Eighth, Thirteenth and Fourteenth armies, joined by the Twelfth Army from the Western Front in mid-October) continued under the command of former Gen.-Lt. V.N. Egor'ev. The scaled-down front was at first given the supporting role of aiding the Southeastern Front to realize the Soviets' cherished goal of splitting the White forces in two by striking southwest from the Balashov-Tsaritsyn area towards Rostov. However, this reorganisation was not actually effected until 30 September, by which time the situation had changed considerably. Kursk had fallen to Denikin's forces on 20 September and it was now the White advance along the Orel-Tula axis which presented the greatest danger to the Soviet Republic. Here the 'threatening proportions of a strategic

⁵⁵ Denikin, Ocherki, V. 230.

⁵⁶ Bubnov, Kamenev and Eideman, III. 282.

catastrophe' forced the Soviet command to shift its attention to the area immediately south of Moscow.⁵⁷

The Soviets commendably resolved to halt Denikin's advance on Orel by launching an attack of their own. To this purpose, Glavkom Kamenev in late September ordered the concentration southeast of Bryansk of 10,000 infantry, 1,500 cavalry and 80 guns, which was to form the core of the Soviet counterattack southeast of Orel.⁵⁸ In a 9 October directive to his army commanders, deputy front commander A.I. Egorov, a former tsarist colonel, outlined the plan for the coming counteroffensive. The strike group, under the command of former general A.A. Martusevich, was to advance from the Kromy area and strike at Denikin's communications along the Orel-Kursk railroad in the general direction of Maloarkhangel'sk and Fatezh. The Thirteenth and Fourteenth armies were to halt their withdrawal and support the strike group, which was to be subordinated to Thirteenth Army for the occasion.⁵⁹

The Soviet response to this latest crisis was as rapid and decisive as it had been on the Eastern Front. With the proclamation of the Southern Front as the main area of operations in early July, the Bolshevik military machine swung into action. The steady influx of men which this designation brought in its wake enabled the Soviets to bring the Southern Front up to a strength of 113,439 infantry, 27,328 cavalry and 774 guns by the start of the operation, against a White force of 58,650 infantry, 48,200 cavalry and 431 guns.⁶⁰

Hand in hand with these feverish offensive preparations went a number of steps intended to strengthen the defences south of Moscow. On 22 September the RVSR created the Moscow Defence Sector, embracing the city and a number of provinces in a large semicircle to the south

⁵⁷ A.I. Egorov, Razgrom Denikina, 1919 [The Rout of Denikin, 1919] (Moscow, 1931), p. 133.

⁵⁸ Bubnov, Kamenev and Eideman, III. 264.

⁵⁹ Azovtsev, et al, II. 349-50.

⁶⁰ Bubnov, Kamenev and Eideman, III. 262.

of the capital. The city's defence was subsequently broken down into four separate defensive belts girding the approaches to the capital from the southwest, south and southeast, which eventually reached a depth of 440 kilometers. These defences were manned by internal divisions, whose strength grew by the end of October to over 53,000 men. These troops, as well as civilian labourers, were employed in digging trenches and constructing troop obstacles ultimately totaling several hundred kilometers in length by the end of the operation.⁶¹ These preparations are among the earliest examples of a Soviet attempt to construct an operational-level defence. Though primitive compared to later efforts, and never tested, these fortified lines are nevertheless an interesting example of the scale of Soviet thinking along these lines and a harbinger of even more impressive efforts during World War II.

Meanwhile, some 250 kilometers southeast of Orel, events were also reaching a crisis for the beleaguered Red forces. Here Gen. V.I. Sidorin's Don Army was pressing the Soviets back in the Voronezh area and had opened a 130-kilometer gap north of the city between the Thirteenth and Eighth armies, which threatened to unhinge the entire Soviet front. Kamenev, to forestall a disaster, ordered S.M. Budennyi's cavalry corps northward from the middle Don on 7 October, with instructions to destroy the White cavalry and, in conjunction with the Eighth Army, to retake Voronezh, which had been abandoned the previous day.⁶² Front commander Egor'ev's instructions to these units merely repeated Kamenev's orders and set the line of the Don River as the final objective.⁶³ However, at this early stage in the operation's planning there was no attempt on either commander's part to coordinate the Orel and Voronezh counteroffensives, and from the very first the situation around the latter city was of secondary importance in Soviet calculations.

⁶¹ Agureev, p. 52.

⁶² Belov, et al, p. 480.

⁶³ Azovtsev, et al, II. 347-48.

The Soviet counteroffensive in the Orel area opened on 11 October in an extremely fluid situation which saw both sides advancing and withdrawing simultaneously. So lightly manned were the White lines west of Kromy that the spearhead's initial assault hit only air and did not even encounter the enemy in any strength until the next day. However, the Soviets moved forward slowly and succeeded in taking Kromy only on the 14th. The group's plodding advance was due not only to stubborn White resistance, but also to Martusevich's justified fear for his lengthening flanks, as he followed with growing concern the retreat of the Red infantry units on either side. These and other Soviet units were literally fighting for their lives as the White forces maintained the pressure, seemingly indifferent to the Soviet attack. The situation was even more critical to the northeast, where the Whites took Orel on the 13th, tearing a dangerous gap between the Thirteenth and Fourteenth armies and opening the way to the military-industrial centre of Tula.

For the strike group to have continued to advance in the original direction would have meant putting its head further into the noose. Egorov, now front commander, reacted to this new threat by changing the axis of the group's advance and orienting it due east towards Eropkino station to threaten the White communications and attack towards Orel from the southwest. The primacy of Orel in the developing situation was reemphasized on 17 October, when Egorov ordered the newly-arrived Estonian Rifle Division into the attack directly on Orel.⁶⁴ Egorov later regretted having to make this change his plans, but defended his decision by maintaining that to have continued to push the front's spearhead in the original direction 'would have led to catastrophic results'.⁶⁵

Actually, very little now remained of the original plan for a deep strike against the White communications. Instead, the two exhausted armies continued to batter at each other in what had become

⁶⁴ *Ibid*, pp. 354, 356.

⁶⁵ Egorov, p. 164.

an extended meeting operation along the entire front, and the strike group's efforts now differed little from any of the other headlong collisions now taking place. The Whites continued to advance to the east of Orel and captured Novosil' on 17 October. But the Soviet advantage in numbers was beginning to tell and the Reds recaptured the town two days later. The Whites, by now beset on three sides, also abandoned Orel on the 20th, although they continued to attack in the Kromy area.

While the fate of the Orel counteroffensive hung in the balance, Egorov harried his left-wing units (Eighth Army and Budennyi's corps) to speed up their attack towards Voronezh. However, the Soviet units in this area seemed in no hurry to move and limited themselves to some heavy sparring with the White cavalry east and southeast of Voronezh. Egorov's orders on 18 October were more detailed, and for the first time implied a connection between the activities of his left wing and centre. The front commander ordered Budennyi to defeat the enemy in the Voronezh area and to cover the Eighth Army's advance across the Don. The cavalry was then to advance on Kastornaia and Kursk, which would put the Soviets in the rear of the Volunteer Army engaged around Orel and threaten it with the loss of its communications to the south.⁶⁶

The skirmishing east of Voronezh climaxed on 19 October, when the White cavalry struck S.K. Timoshenko's cavalry division, and the melee quickly expanded as units from both sides were fed into the fighting. The Whites were ultimately defeated in the brisk, close-quarters battle, and they withdrew into Voronezh, their path of retreat 'paved with their corpses', in Budennyi's colorful phrase.⁶⁷ The Soviets failed in their attempts to take Voronezh on the march. They then brought up their forces for a coordinated assault and began their attack on the city on the 23rd: the cavalry corps from the east and north, with the Soviet infantry attacking from the southeast.

⁶⁶ Azovtsev, et al, II. 359-60.

⁶⁷ Budennyi, I. 272.

The Whites, to avoid encirclement, abandoned the city and took up defensive positions across the Don. Two days later the Eighth Army's left-flank units took Liski to the south.

Egorov, with the initiative in the Orel area now in his hands, hurried his armies forward. His order of 20 October reoriented the axis of the spearhead's advance away from Orel and back towards Fatezh and Kursk, while the remainder of Fourteenth Army was to continue its attack towards Dmitrovsk and Dmitriev, and Thirteenth Army moved south on Livny and Kastornaia.⁶⁸ Once again, however, the Soviet attacks became snarled in a series of costly frontal engagements all along the line. The lumbering Soviet style of attack did involve, however, an attrition which the Reds could afford far better than the Whites, whose meager resources were already stretched to the breaking point. Nevertheless, for the time being the Whites stubbornly answered each Soviet attack with an assault of their own during the see-saw fighting which characterized the next two weeks. Denikin's units, pressed by superior forces, gradually began to give ground.

As the fighting around Orel swayed first one way and then another, the Soviet command began to look more and more to Budennyi's corps to tip the scales. This was particularly true of the Novosil'-Elets area, where a White breakthrough towards Lipetsk and Tambov appeared imminent. Budennyi began crossing the Don on 28 October north of Voronezh and in the first days of November fought off numerous attacks in the Zemliansk area. Here the Soviet cavalry was able to link up with the Thirteenth Army advancing south and close the gap in their line. By 8 November both units had closed to Kastornaia from north and east. The Whites could ill afford to lose this vital rail junction, which afforded the best most direct communications route between the Don and Volunteer armies. Throughout the following week the Red and White cavalry traded blows in the surrounding villages, each side first advancing, then retreating.

⁶⁸ Azovtsev, et al, II. 360.

The weight of numbers was decisive here as well, however, and Budennyi was able to maneuver southeast of the rail junction and drive a wedge between two White cavalry corps. Soviet cavalry, attacking from three sides, finally took Kastornaia on 15 November. With the town's fall the operation came to a close, with the Soviets well-placed to continue the drive south. Although the Voronezh-Kastornaia operation had always occupied a secondary place in Soviet calculations, its importance had nevertheless increased as the counteroffensive around Orel faltered. No less an authority than Denikin credited the Soviet offensive out of Voronezh with forcing him to abandon Orel.⁶⁹

Time was also running out for the White cause in the Orel area, where the Volunteer Army continued to fall back before spirited, if inept, Soviet attacks. The Whites tried to organise a defence in the Dmitrovsk-Eropkino area, but Soviet infantry broke through on the morning of 3 November. Red cavalry surged into the breach and advanced to cut the Orel-Kursk railway at Ponyri the next day, while another unit raided as far south as Fatezh. The disorganisation which these incursions caused in the White rear only served to speed up the defenders' collapse. Sevsk fell on the 6th, as the White front began to buckle. Dmitriev finally fell to the Reds on 13 November, and another cavalry raid on Lgov captured that town on the 17th, cutting the a vital east-west rail link. With the fall of Kursk the same day the operation came to an end.

In contrast to the rapid Soviet advance in the East, more than a month of heavy fighting during the Orel-Kursk (11 October-18 November) and Voronezh-Kastornaia (13 October-16 November) operations had thrown back the outnumbered Whites no more than 160 kilometers. Nevertheless, the two operations had brought about a complete reversal of military fortunes in favor of the Red Army. Thereafter the Soviets moved swiftly to realize their strategy of destroying Denikin by driving a wedge between the Volunteer and Don armies and splitting

⁶⁹ Denikin, Ocherki, V. 233.

the White forces in two against the Sea of Azov. An undertaking of this magnitude involved for the first time the cooperation of both the Southern and Southeastern fronts, necessitating their strategic coordination by the commander-in-chief. The Khar'kov and Khoper-Don operations in November and December cleared eastern Ukraine and the middle Don of White forces. The subsequent Donbass operation in December captured that vital industrial region and set the stage for the Rostov-Novocherkassk operation in January 1920, which irreparably split the White armies into eastern and western halves. A number of operations remained to be conducted before Soviet power was finally established in the South, notably in the Kuban' River area, the North Caucasus and southwestern Ukraine, all in the face of military exhaustion and a typhus epidemic which ravaged both sides equally. With the lone exception of the Whites' Crimean stronghold, by the spring of 1920 the war in the South was over.

While they were ultimately highly successful, the two operations which constituted the autumn counteroffensive reveal a number of flaws in Soviet execution, particularly during the Orel fighting. While it must be acknowledged that in the Volunteer Army the Soviets faced an opponent of higher quality than Kolchak's ragtag legions, they nevertheless frittered away their significant advantage in numbers by ignoring a number of basic military principles, chief among these being the importance of maneuver. Thus while the Red Army displayed its usual skill in massing large numbers of men along the desired axes, the practice of launching frontal attacks did much to negate the advantage gained.

On the credit side, the Soviet practice of creating strike groups with a heavy cavalry complement increased the range, shock power and mobility of the units significantly. On the Eastern Front the cavalry's role had been relatively minor due to its small numbers and the proletarian army's lack of familiarity with this historically aristocratic arm. By the autumn of 1919 this situation had changed considerably, and the Soviet cavalry's growth in numbers and skill during the year meant that these units could be used more effectively

as a shock force to crack the enemy's thinly-held positions and exploit the subsequent breakthrough in depth. The Red Army was not slow to see the potential of even larger formations of this type, and the creation of Budennyi's First Cavalry Army in November 1919 indicated the lines along which their thinking was to develop.

Following the end of the Soviets' war with Poland (see section D), the last hope of the faltering White cause lay in the Crimea and the area immediately to the north, where the shattered remnants of the Volunteer Army maintained a small bastion against the Red forces. Here Gen.-Lt. Baron P.N. Wrangel had succeeded Denikin in command of the remaining anti-communist forces in early 1920. Although Wrangel's rechristened 'Russian Army' (First and Second armies) was pitifully small, he was able to take advantage of the Red Army's preoccupation with the Poles to move successfully against the weak Soviet forces in June. This offensive soon reached the line of the lower Dnieper, although repeated attempts to eliminate the Soviet foothold across the Dnieper at Kakhovka failed. By early September Wrangel was in a position to threaten Ekaterinoslav (Dnepropetrovsk) and the Donbass industrial area. However, spirited White attempts to take these areas were beaten back and by early October Wrangel had been forced to retreat to a shorter line.

The Soviet high command responded to this latest challenge by reconstituting the Southern Front on 21 September. This force initially included the Sixth and Thirteenth armies, as well as the newly-created Second Cavalry Army, later augmented by the formation of a new Fourth Army and the arrival of Budennyi's First Cavalry Army from the Polish front in late October. M.V. Frunze, newly arrived from the Turkestan Front, was appointed commander. As long as the situation with Poland remained uncertain, Frunze remained on the defensive, content to repel White forays and build up his own forces. He fretted over the latter's slow arrival, fearing that Wrangel might foil his planned counteroffensive by withdrawing his forces into the security of the Crimean peninsula. By the end of October Frunze

could count on a heavy numerical and technical superiority of 99,500 infantry, 33,685 cavalry, and 527 guns against a meager White force of only 23,070 infantry, 11,795 cavalry, and 213 guns.⁷⁰

Frunze's 26 October directive described the goal of the operation as to destroy the enemy's 'main forces by a coordinated, concentric offensive', so as to cut off his retreat back into the peninsula. According to this plan, the Fourth and Thirteenth armies would attack to the southwest, with the latter breaching the Melitopol' fortifications and pursuing the enemy with its cavalry. While this force occupied the defenders' attention, the main blow would come further west, along the Dnieper. The Second Cavalry Army would attack due south out of its Nikopol' bridgehead towards Seragozy, in order to 'surround and destroy the enemy's main forces', which Wrangel had concentrated against the Kakhovka bridgehead. Meanwhile, the Sixth Army would force its way out of the bridgehead and head south to cut off the Whites' retreat through the Perekop isthmus. The army, at the same time, would open a path for the First Cavalry Army to drive to the east. The Soviet cavalry was to pour into the breach made by the infantry and, with its main forces turn north towards Seragozy to link up with the Second Cavalry Army, while also dispatching a smaller force to cut the railroad leading from Melitopol' into the peninsula.⁷¹

The most striking feature of Frunze's plan was its fatal multiplicity of objectives, even taking into account his crushing superiority of force. While he correctly strove to cut off the enemy's forces in the Seragozy area with his mounted armies, he then proceeded to undermine his own plan by dispatching part of this force for a raid further east against the Whites' communications. Frunze's attitude is all the more puzzling in light of his earlier proposal to Kamenev to move the Second Cavalry Army south to the Kakhovka area,

⁷⁰ I.S. Korotkov, Razgrom Vrangelia [The Rout of Wrangel], 3rd ed. (Moscow, 1955), p. 206.

⁷¹ Azovtsev, et al, III. 484-85.

which would have enabled the Soviets to strike in force across the base of the White position, resulting in a larger envelopment of the White army.⁷² Kamenev, however, rejected this suggestion.

Still, given the numbers involved and the unfavorable configuration of the White's 350-kilometer front, there could be little doubt as to the final outcome when the Soviet offensive began on 28 October. The fighting had actually begun two days before with the Second Cavalry Army's attack out of its Nikopol' bridgehead, although progress in this sector was limited at first. The Reds had greater success to the east, where the Whites methodically pulled back and the Fourth and Thirteenth armies advanced as far as Balki and Bol'shoi Tokmak. Elsewhere, part of Sixth Army made good progress towards Perekop. Budennyi's army, arriving late, was unable to advance much beyond Sixth Army's forward units in the Kakhovka area.

However, the first day's mixed successes did nothing to dampen Frunze's enthusiasm. In fact, so impressed was the front commander by misleading reports of Second Cavalry Army's alleged victories south of Nikopol' that he radically altered his operational plan. On the 29th he ordered Budennyi to extend his attack to Sal'kovo and Genichesk (the latter on the Sea of Azov).⁷³ However, he failed to allocate additional forces for this new task, while the original goal of trapping the White forces around Seragozy remained in force. As a result, two cavalry divisions turned northeast towards Seragozy, while the other half of the army pushed southeast to the Azov coast. It was a division of effort which would cost the Reds dearly.

However, all seemed to well at first, as Budennyi's cavalry moved almost effortlessly through the undefended White rear. By the evening of the 29th Soviet cavalry had advanced as far east as Novonikolaevka, barely 40 kilometers from the Sea of Azov. To the west, Sixth Army had reached the Black Sea coast and the White defences athwart the Perekop Isthmus. Units of the First Cavalry

⁷² *Ibid*, pp. 475-76.

⁷³ *Ibid*, III. 488-89.

Army reached the sea at Genichesk the next day, while to the north-east the Thirteenth Army finally captured Melitopol' in a disappointingly slow advance. It appeared as though the Whites were trapped.

But Wrangel was not yet beaten. His forces facing the Thirteenth, Fourth and Second Cavalry armies had managed to break contact with their pursuers, which reduced the pressure from that quarter and gained the White commander valuable time to pull his forces south, where the fate of his army was being decided. Wrangel was quick to see the opportunity presented by Budennyi's overextended line in the Sal'kovo-Genichesk area, and he decided to attack in order to pin the Red cavalry against the Sivash, an arm of the Sea of Azov, just north of the peninsula. The White counterattack began on 1 November and the fighting was particularly fierce north of Sal'kovo. Here half of the First Cavalry Army was fighting virtually alone against an increasing number of White units being funnelled through the remaining escape route to the peninsula. The Soviets were forced to abandon their blocking position and fall back to the west to rejoin the main forces. By 3 November the last White forces had passed through the bottleneck and had taken up defensive positions covering the approaches to the peninsula. In spite of this incomplete success, the Reds claimed to have taken upwards of 20,000 prisoners, thus fatally weakening the White forces.⁷⁴

Final victory came in the course of the succeeding Perekop-Chongar operation (7-17 November 1920), which drove the Whites from the Crimea and which ended most organised resistance to Soviet rule. With the exception of minor fighting in the Caucasus, Central Asia and the Far East, the Civil War in Russia was over.

Although the front command's overconfidence and the White's fighting abilities had rendered the Soviets' success incomplete, the October battles nonetheless represent a step forward in the Red Army's conduct of large-scale operations. Once again we see the Soviets striving for a decision based on turning the enemy's flank,

⁷⁴ Korotkov, p. 229.

followed by a deep drive into his rear, for the purpose of surrounding his forces and cutting off their retreat. Unfortunately for the Soviets, this otherwise laudable approach was blunted by their failure to adequately reinforce their main strike arm. This was another instance of inadequate means in pursuit of decisive ends, which had led them into disaster just a few months before. Frunze's limitations and those of his army commanders also detracted from the ultimate victory, particularly in their failure to pursue the enemy vigorously.

The Soviets' use of their cavalry arm during the operation is especially noteworthy. It was not deemed expedient, given the heavy White fortifications ringing the Kakhovka bridgehead, to attempt a breakthrough with cavalry forces alone, as had been the case at Voronezh the previous autumn, when the mounted formations had breached the front without infantry support. The Kakhovka position was the one instance in the Civil War in which conditions approached those of the Great War's trench conditions on the Western Front. At Kakhovka the Soviets were forced to break through the enemy's tactical defence before they could exploit the success in depth with their cavalry. This method of infantry-cavalry cooperation later served as a point of departure for a technically-updated Red Army's later theoretical work on the theory of the deep operation.

D. Operations in the War Against Poland, 1920

As a result of the 1772, 1793 and 1795 partitions of Poland by Austria, Prussia and Russia, the Polish state ceased to exist for more than a century. Poland was reborn, following the collapse of these same empires in 1917-18, and immediately set about reconstituting itself at the expense of its late masters. Chief among these was Russia, against which the Poles harbored territorial claims stretching far to the east of the country's ethnic boundaries. However, other than seizing large tracts of land in Belorussia and western Ukraine, Poland remained neutral in the conflict between Red and

White, even when a determined offensive in conjunction with Denikin's summer 1919 advance might well have meant the end of the Bolshevik regime. That the Poles ultimately refrained from intervening is hardly surprising, given that the White slogan of 'Russia, great and indivisible', was more hateful to them than even the pernicious social doctrines emanating from Moscow. By the spring of 1920 it had become clear with whom the Poles would have to deal, and they acted at last. The Poles, following a series of insincere negotiations on both sides, attacked in Ukraine on 25 April 1920, while the Soviet armies were still recovering from the previous winter's exertions. The invaders easily brushed aside the weak Soviet forces in the area and captured the Ukrainian capital of Kiev on 6 May. This new threat, coupled with the increasing aggressiveness of the White forces holed up in the Crimea, meant that the Soviet Republic had reached another critical pass.

But the Polish invasion did not catch the Soviets completely off guard, as the latter had been expecting war for some time and were already taking measures. The Soviet plan for first countering, and then throwing back the Polish attack was chiefly conditioned by the Pripiat' Marshes, a 270,000 square kilometer expanse of forest and swamp between Gomel' and Brest. This feature makes the large-scale lateral movement of troops difficult and effectively divides the western theatre of war into northern and southern halves. At the beginning of the war the northern sector was covered by Tukhachevskii's Western Front (Fifteenth and Sixteenth armies, plus the 'Mozyr' Group'), while Egorov's Southwestern Front (Twelfth, Fourteenth and Thirteenth armies, with the latter covering the Crimea), guarded the theatre's southern half.

As early as 18 March Glavkom Kamenev informed Egorov that the Western Front would constitute the 'main axis', while the Southwestern Front would conduct operations along the line Berdichev-Rovno-Kovel'-Brest in support of its neighbor.⁷⁵ However, the Western

⁷⁵ Belov, et al, pp. 674-75.

Front's first attempt (14 May-8 June) to force the Polish front in the Polotsk area ended in failure, when a Polish counterattack from the Molodechno area threw the Soviets back nearly to their starting positions. The Western Front's aborted offensive nonetheless had the salutary effect of drawing off significant Polish forces north of the marshes, thus weakening their front around Kiev, where Egorov was preparing his own attack.

The Polish advance in the south had carried Marshal Joseph Pilsudski's Southeastern Front (Third, Second and Sixth armies) as far as the Dnieper River south of Zhlobin, from whence the front followed the river to a point just south of Kiev, before curving southwest back to the Romanian border along the Dniester River. The Poles also held a small bridgehead on the Dnieper's left bank opposite Kiev. Here the Poles dug in, in effect, leaving the initiative to the Reds. The latter were not slow in taking advantage of the opportunity and immediately began reinforcing the area. Crucial to this effort was the arrival of the First Cavalry Army, following a 53-day journey from the Northern Caucasus, where it had been engaged in mopping up the remnants of Denikin's shattered army. The army, in the course of its 1,000-kilometer trek to the west, also engaged in considerable fighting with anti-Soviet guerillas in southern Ukraine. By late May the army finally reached its assembly point near Uman'.

Egorov issued detailed instructions to his commanders on 23 May. Budennyi's cavalry army was to constitute the front's strike group, charged with the task of splitting the Polish front in two. The First Cavalry Army, after taking Berdichev and Kazatin, was to 'act in the enemy's rear', a vague order which was to cause a good deal of confusion later on. The Twelfth Army was to force the Dnieper north of Kiev and cut the railway to Korosten'. I.E. Iakir's 'Fastov Group' and I.P. Uborevich's Fourteenth Army would assist the main effort by attacking and tying down enemy forces along their respective sectors.⁷⁶

⁷⁶ Azovtsev, et al, III. 158-59.

The most striking aspect of this order was its failure to call for the encirclement of the Polish Third Army, based on Kiev, in spite of the existence of advantageously-placed Soviet forces on either flank. Egorov's failure to employ the highly-mobile cavalry army for anything more than extended raiding in the enemy rear, leaving the main task of cutting the enemy's communications through Koristen' to the slower Twelfth Army, is particularly incomprehensible, and reminds one of the front commander's unimaginative approach during the fighting around Orel. Added to the plan's flawed conception was the front's overall lack of means to achieve even these goals. The most even-handed sources give the Poles a superiority of 60,000 to some 37,000 infantry and cavalry.⁷⁷ However, Egorov did follow standard Soviet procedure in providing for the maximum concentration of force along the decisive areas of his 400-kilometer front. This was in contrast to the Polish practice of dispersing their forces more or less evenly along the front. This meant that the First Cavalry Army was able to field over 15,000 troops, most of them mounted, and 53 guns in its breakthrough sector, against a slightly smaller Polish force, only about half of which was cavalry, and 77 guns.⁷⁸

The Soviet attack jumped off on 26 May but met with varying success along the front. Twelfth Army, supported by units of the Dnieper flotilla, made a number of unsuccessful attempts to cross the river and only managed to secure a small bridgehead north of Kiev by 1 June. The 'Fastov Group' made good progress at first towards Belaia Tserkov', but a Polish counterattack on 30 May threw it back almost to its original position. The First Cavalry Army moved out on 27 May but had to spend several days dispersing Cossack mounted 'bandit' detachments which had helped to screen the Polish front. The first days of June were spent probing the Polish lines in what

⁷⁷ Bubnov, Kamenev and Eideman, III. 352.

⁷⁸ F. Zhemaitis, 'Proryv Pol'skogo Fronta 1-i Konnoi Armiei' [The Piercing of the Polish Front by the First Cavalry Army], V-IZh (1940), no. 6(11), p. 6.

was nonetheless heavy fighting. Budennyi, in order to crack the enemy front, organised his army into two echelons for the breakthrough and exploitation along a narrow front. On 5 June the army broke through at the boundary of Third and Sixth armies, and by the end of the day it had advanced some 30 kilometers into the enemy rear. The following day the cavalry army cut the Kazatin-Kiev railway. But the Poles reacted quickly to this threat and counterattacked, closing the break in their lines and effectively cutting Budennyi off. The Red commander's response to this dilemma was to continue his raid into the Polish rear, capturing Zhitomir and Berdichev on the 7th, before falling back towards Fastov to link up with Iakir, having covered some 140 kilometers.

However, wrangling within the Soviet camp ultimately nullified whatever success the cavalry could claim. Repeated altercations between Kamenev and Egorov over what direction the operation should take led to the cavalry army being moved first to Fastov, back towards Zhitomir and Kazatin, then back on Kiev, over several days. The constant change in direction exhausted the troops and wasted precious time, and was only exacerbated by Budennyi's loss of radio contact with front headquarters for several days, during which time his army roamed uselessly in the Polish rear. Twelfth Army's ineffectual attempts to cut the Poles' retreat through Korosten' also contributed to the Soviets failure to encircle the Third Army. The Southwestern Front did manage to retake Kiev on 12 June, as the Polish armies began to fall back, but the Soviets' confusion enabled Pilsudski to extricate his forces in time. As a result, an operation which might have ended in the capture of considerable enemy forces, merely succeeded in pushing them back.

For the time being, at least, this was sufficient, and the Kiev operation heralded the beginning of a lengthy Polish retreat, although the Poles managed to keep their forces together throughout. The Southwestern Front now pursued the Poles across Volhynia and Galicia, which resulted in the Novograd-Volynskii (19-27 June), Rovno (28 June-11 July) and L'vov (23 July-20 August) operations. None of

these, however, yielded a decisive result and the fighting here was eventually overshadowed by events to the north.

The most operationally-notable feature of the Kiev operation, aside from the Soviet command's failure to plan for or achieve the enemy's encirclement, was the employment of massed cavalry to pierce the static Polish defence and to subsequently exploit this success in their rear. This time the breakthrough was achieved by echeloning the attacking units in depth, because of the more permanent character of the Polish defence. The Soviet approach represented a refinement of the methods used against Denikin's forces the previous autumn in the more open conditions of southern Russia and testified to growing Soviet skill in the handling of large mobile formations.

After the fall of Kiev, the Soviets shifted their attention back to the area north of the Pripiat' Marshes. The Soviet high command, while fully recognizing the political and psychological importance of regaining the Ukrainian capital, never lost sight of the fact that the shortest and most decisive route to victory lay along the Minsk-Warsaw axis. Following the failure of the May operation, the Soviets took advantage of the Poles' preoccupation with western Ukraine to renew their attempts to break through to the Polish heartland. For this purpose, Tukhachevskii was reinforced with two new armies (Third and Fourth), which brought his total force at the beginning of July to 91,463 infantry and cavalry, against the Polish Northeastern Front (First and Fourth armies, and the 'Poles'e Group'), which numbered 72,600.⁷⁹

Tukhachevskii's plan closely resembled his preparations for the May operation, and consisted, as he put it, of 'resting our right flank against Lithuania and East Prussia and throwing back the Polish forces' against the Pripiat' Marshes.⁸⁰ The front commander's plan called for a concentrated blow by the front's powerful Fourth, Fifteenth and Third armies to the north of the sluggish Berezina

⁷⁹ Bubnov, Kamenev and Eideman, III. 366-67.

⁸⁰ Tukhachevskii, I. 128.

River, which would then sweep around the Polish left towards Molodechno like the swinging of a giant gate. The southern wing (Sixteenth Army and the 'Mozyr' Group') would tie down the Polish forces by attacking towards Minsk. Central to the main effort's success was G.D. Gai's 3rd Cavalry Corps, which was positioned on the advance's right shoulder, with the mission of operating in the enemy rear following the breakthrough. If the Soviets moved swiftly enough, so this proletarian version of the Schlieffen Plan proposed, the Polish units around Minsk and to the south would be pinned against the marshes and destroyed.

Tukhachevskii, in drawing up his plans for the new offensive, was aware that the conditions of the relatively static front along the Berezina more nearly approached those of the recent World War than had heretofore been the case in the Civil War. Thus he would need to create a superiority of force along the axis of the main attack which would ensure the density of force necessary for the attack's success. Tukhachevskii, by the usual Soviet practice of ruthlessly skimming men from the more passive sectors of his front, thus managed to create a superiority of 60,000 to 33,000 along the strike group's 135-kilometer attack sector, while the remainder of the 450-kilometer front had to make do with the remainder.⁸¹

It is therefore hardly surprising, given this superiority, that the Soviet attack on 4 July enjoyed great success from the outset. The advance north of Minsk was steady, as the badly-outnumbered Poles began to fall back to the southwest. Gai's advance was especially swift as he pushed his cavalry into the breach opened up by the Fourth Army. In less than a week the Soviet cavalry advanced some 120 kilometers to take Svetsianys (Svencionys) on the 9th. Progress was almost as swift to the south, where the Fifteenth Army took Molodechno on the 11th, while Minsk fell to the Sixteenth Army the same day. The line of the old German trenches was quickly pierced, and on 14 July Gai's cavalry captured Vil'nius, followed quickly by

⁸¹ Bubnov, Kamenev and Eideman, III. 364.

Lida and Baranovich to the south, as the Polish retreat gathered speed. In late July the Soviets crossed the Nieman and Shara rivers and took Grodno, while to the south they occupied Pinsk. By the end of the July operation the Soviet forces had advanced more than 300 kilometers in some places and were poised to cross over into ethnic Poland.

However, as spectacular as the operation had been in terms of territory regained, the overall military results for the Soviets were slim. While the Polish armies had been severely handled, they nonetheless managed to evade Tukhachevskii's trap and fall back relatively intact. This was chiefly due to the Red Army's low level of mobility, its primitive supply system, and the chaotic command and staff arrangements engendered by the Western Front's rapid growth in June. The marshy and wooded terrain of much of Belorussia and the proximity of the Latvian and Lithuanian borders also hindered the advance by constricting the area for maneuver and channeling the attack into predictable directions which could more easily be defended. But the absence of any decisive victory and the expected large haul of prisoners failed to temper the euphoria which seized the Soviet command in late July. Indeed, there seemed little cause for concern at the time, as Egorov's forces pressed on south of the marshes, capturing Rovno and Ternopol'. In this buoyant atmosphere Kamenev became lax in his strategic coordination of the two fronts and allowed his subordinate commanders' immediate operational objectives to develop at variance with his own plans.

Before late July it had been understood by all parties that the axis of the Southwestern Front's advance would be to the northwest, in the general direction of Brest. However, emboldened by their success in Volhynia in June and July, Egorov and his political commissar, Joseph Stalin, petitioned Kamenev on 22 July to reorient the axis of the front's advance on L'vov.⁸² Kamenev agreed the next day, shortly after issuing instructions to Tukhachevskii for the

⁸² Azovtsev, et al, III. 225-26.

final advance on Warsaw, the capture of which he scheduled for 12 August.⁸³ That Kamenev was so quick to agree to this fundamental change in his plans is indicative of the unfounded optimism then reigning in Moscow. He may also have been unwilling to defy Stalin, a member of the party Politburo, whose intense dislike of the military specialists, of which Kamenev was one, was well known in the army. Whatever the reason, what was to have been a converging movement on Warsaw from the east and southeast had, instead, become a two-pronged assault along diverging axes. Kamenev, by agreeing to split the Soviet effort, had inadvertently set the stage for the Poles' 'miracle on the Vistula'.

At this juncture, however, there seemed little cause for alarm, as the Western Front continued to advance against spotty Polish resistance, which generally took the form of brief defensive battles organised along the river lines. The Red Army captured Belostok on 29 July and Brest three days later. The Soviets, pushing beyond the Bug and Narew rivers, had by 9 August reached a point only about 35 kilometers from Warsaw. Tukhachevskii, in orders issued the next day outlined his plan for piercing the line of the Vistula River. The front commander, who based his plan on the erroneous assumption that the main Polish forces were located north of Warsaw, ordered the Fourth, Fifteenth, and Third armies, as well as most of the Sixteenth to force the Vistula north of the city in order to cut the Poles' supply lines to their Western allies, which led through the Polish Corridor. The remainder of his forces were to close to the river south of the capital.⁸⁴

Tukhachevskii's decision to weight the advance north of Warsaw put a serious strain on his weak left flank, which was already overextended by the deflection of Egorov's front towards L'vov. The Western Front's left wing was now anchored on the weak 'Mozyr' Group', which had been intended as the link between the two fronts as

⁸³ Belov, et al, pp. 704-05, 643-44.

⁸⁴ Azovtsev, et al, III. 78-79.

they traversed the marshes. With the fronts now going their separate ways, this minuscule force had become the linchpin of the Red Army's entire effort, prompting fears that the Soviet front could 'snap like an overstretched string', in Kamenev's prophetic phrase.⁸⁵ Tukhachevskii's problems were also increasing due to his staggering supply problems, brought about by the previous month's rapid advance, which had already carried some units as much as 600 kilometers. This and the miserable condition of the Soviet railroads meant that as many as 60,000 reinforcements were stranded in the rear and unable to reach the front, just as the battle was approaching its climax.⁸⁶

Still Tukhachevskii pressed gamely on, although Polish resistance was beginning to stiffen noticeably all along the line, and it became apparent that they were determined to give battle north and east of the Vistula. By mid-August, however, the Western Front numbered only 102,700 infantry and cavalry against 145,000 Poles.⁸⁷ The two sides' forces were deployed as follows: north of the Bug River the Soviet Fourth, Fifteenth and Third armies were opposed by the Polish Fifth Army and the 'Lower Vistula Group'. South of the Bug the Sixteenth Army was approaching Warsaw and the middle Vistula, against the Polish First and Second armies, which disproved Tukhachevskii's contention that the chief enemy units were deployed north of the Polish capital. However, the real danger was the Poles' Central Front (Fourth and Third armies), which was preparing a counteroffensive aimed at the sector held by the weak 'Mozyr' Group'. Tukhachevskii, true to his operational plan, had assembled most of his force north of the Bug and had even managed to create a small advantage in numbers here. But the Poles had been able to put together a crushing superiority of force in the Deblin area and were preparing to strike the Soviets' 'overstretched string' and split their front in two.

The Polish advantage need not have been decisive, however, had

⁸⁵ *Ibid*, pp. 79-80.

⁸⁶ Tukhachevskii, I. 145.

⁸⁷ Kakurin and Melikov, p. 290.

the Soviets carried out the planned regrouping of their forces in time. Kamenev, as early as 3 August, had instructed both front commanders to prepare for the transfer of the Southwestern Front's Twelfth and First Cavalry armies to the Western Front, followed three days later by an order transferring the Fourteenth Army as well.⁸⁸ And although Egorov issued the necessary instructions to implement the order, he seems to have done everything in his power to hinder this movement by plunging his armies deeper into the L'vov fighting. Events finally reached a crisis on 14 August, when Stalin, exercising his prerogative as a member of the front's military council, refused to countersign the necessary orders turning over the armies, until they were finally signed by another member. Had the Twelfth and First Cavalry armies been dispatched to the Lublin-Deblin area on time, as Kamenev and Tukhachevskii had wished, the two armies' 26,000 troops (including 15,000 cavalry) would have eliminated the Polish advantage in the area and foiled their counteroffensive.⁸⁹

The Polish attack, thus unhindered, began on 14 August with the Fifth Army's assault north of Modlin. The Soviet Fourth and Fifteenth armies began to give way, while to the south the Sixteenth Army took Radzymin and was approaching the outskirts of Warsaw. A surprise attack by Polish cavalry the next day broke through the Soviet lines and captured Fourth Army's headquarters at Ciechanow, completely disrupting its communications with the front command in Minsk and with its own divisions. Gai, thus unmindful of the true state of affairs in his rear, continued to push his cavalry corps to the west, with the aim of cutting off the Polish corridor from the hinterland. Soviet cavalry even crossed the Vistula at Wloclawek on the 16th, before being ordered back to participate in the counterattack being prepared against the Fifth Army. However, while the fighting north of the Bug seesawed back and forth for several days, it was quickly overshadowed by the decisive events taking place at

⁸⁸ Belov, et al, 646-47.

⁸⁹ Bubnov, Kamenev and Eideman, III. 437.

the other end of the Vistula front.

Here Pilsudski launched his main attack due north from the Deblin area against the Soviets' thin covering screen. The Poles easily brushed the defenders aside, pushing the 'Mozyr' Group' to the east and rushed into the yawning gap between the two fronts. By 17 August the Poles had reached Siedlce and were approaching Brest, well in the rear of the Soviet forces still tied down before Warsaw. Tukhachevskii, not yet aware of the magnitude of the danger, gamely continued to spur his armies onward. That same day the front commander ordered his three northern armies to continue their attacks, while Sixteenth Army was to pull back its left flank to cover the Soviet rear. He ordered the Twelfth and First Cavalry armies to assemble in the Chelm-Vladimir-Volynskii area, preparatory to taking the Polish counteroffensive in the rear.⁹⁰ But the Southwestern Front command continued to delay the dispatch of Budennyi's army, although it is doubtful if it would have made any difference at this late juncture. Nonetheless, it is worth noting that at the very moment when Soviet armies were facing disaster before Warsaw, Egorov and Stalin felt free to continue their own private campaign against L'vov.

By 20 August Tukhachevskii realized that he was beaten and ordered his armies to fall back from the Polish capital. He still seems to have considered the recent fighting only a temporary setback, from which he would soon resume the attack, for on the 24th he ordered the Twelfth and First Cavalry armies to advance on Krasnystaw and Lublin, deep in the rear of the enemy's strike force.⁹¹ This time the armies finally moved and managed to advance as far as the line Zamosc-Chelm, before they were turned back at the end of August. Their arrival, in any event, was much too late to do anything other than discomfit the Poles, who had closed to the East Prussian border in the Mlawa area, cutting off 3rd Cavalry Corps, Fourth Army, and

⁹⁰ Azovtsev, et al, III. 84-85.

⁹¹ Ibid, pp. 89, 92.

part of the Fifteenth Army. These units crossed into Germany, where they were interned for the duration of the war. The other Soviet armies managed to escape, although they were terribly worn down. Successive Polish attacks through the autumn gradually forced the exhausted and outnumbered Soviets back to approximately the line where they had begun the war in May. An armistice in October finally halted the fighting and allowed the Soviets to transfer troops south for the final confrontation with the Whites.

The Soviet drive on Warsaw had been frustrated by a number of factors, most of them of their own making. Chief among these were miscalculations by the responsible commanders: Egorov, for pursuing secondary ends to the detriment of the common goal; Tukhachevskii, for his overconfidence and cavalier attitude towards his supply situation, and; Kamenev, for his failure to assert his authority and allowing his headstrong subordinates' actions to dictate strategy. To these and the Poles' unexpected powers of recovery must also be added the tendency of Kamenev and Tukhachevskii to push the operation beyond the point where the army's rear organs could possibly sustain it. In retrospect, it would have been wiser to have halted the Western Front's advance along the Bug and Narew rivers in order to rest and reinforce the troops, before making a final effort which might well have been successful. As it was, the exhausted armies were driven beyond their endurance against an enemy who was able to fall back upon his sources of human and materiel supply. And just as Tukhachevskii had hoped to defeat the Poles with his version of the Schlieffen Plan, so he was defeated on the Vistula as the Germans had been on the Marne in 1914, and for much the same reasons. The Warsaw operation seared itself into the Red Army's collective consciousness and provided a theme to which a number of its leading intellectuals would return to often during the years to come.

CHAPTER III. THE BIRTH OF SOVIET OPERATIONAL ART, 1921-1929

A. Introduction

Marx's theory had predicated the outbreak of a proletarian revolution in a given country on the achievement of a sufficiently high level of industrial development and the presence of a working class which constituted the bulk of the population. In one of the great ironies of history, the Bolsheviks' coup had been carried out in a country which still lagged considerably behind the more developed capitalist economies of the West, and where the industrial working class was a very small minority in a society where the great mass of people were still peasants. Moreover, the country had been seriously weakened by an estimated 16,000,000 deaths as the result of two wars and a subsequent famine.¹ Added to this was the country's other population decline, due to the postwar settlement, in which the Soviet Republic lost large territories (Finland, the Baltic States, Poland and Bessarabia) along the former empire's western frontiers.

In addition to these disasters, the Bolsheviks' own harsh policy of 'War Communism', combined with the widespread disruption of the Civil War, had by the end of the conflict reduced the national economy nearly to the subsistence level. The decline in many areas of industry had been precipitous. For example, the production of coal fell from 29.1 million tons in 1913 to 9.5 million in 1921; oil from 9.2 to 3.8 million tons; iron from 4.2 to 100,000 tons, and; steel dropped from 4.2 million tons to 200,000 tons.² The decline in production in many other areas was just as bad, or worse. Even the sympathetic H.G. Wells spoke of 'a vast irreparable breakdown',

¹ D.H. Aldcroft, The European Economy, 1914-1970 (London, 1978), p. 16.

² V.T. Chuntulov, Ekonomicheskaya Istoriiia SSSR [An Economic History of the USSR] (Moscow, 1969), p. 230.

and it was not until 1925-26 that the economy finally achieved the prewar level of production.³

The armed forces were affected no less than the rest of society by the dislocations and shortages of these years. Upon the conclusion of the Civil War in the European part of the country, it became apparent that the armed forces could no longer be maintained at their current size in light of the country's economic problems. During the first half of the 1920s the armed forces were drastically reduced from a high of 5,300,000 at the end of 1920, to 1,600,000 a year later, followed by further cuts which had pared down the military establishment to a mere 562,000 by mid-1924. Of this number, nearly 530,000 served in the army, evidence of the military's primitive condition.⁴ This figure was quite small for a country the size of the USSR, which still suffered from occasional domestic flareups, such as the Tambov uprising in 1921 and a protracted struggle against Central Asian nationalists throughout the decade.

The sharp decline in the army's numbers had an inevitable effect on the command element, which was successively reduced from a high of 130,932 at the end of 1920, to 49,319 at the beginning of 1924.⁵ Much of this reduction came at the expense of the older generation of former officers, which had received its training in the imperial army. This is evident by the proportion of former military specialists (the term was abolished after the end of the Civil War) serving in command positions, which fell from a high of 34% at the end of the Civil War, to 14.1% in 1925, and a mere 10.6% in 1928.⁶

The army's greatly reduced size meant that only a small portion of the yearly draft contingent could be accommodated. The Soviets

³ H.G. Wells, Russia in the Shadows (London, 1920), p. 11.

⁴ I.B. Berkhin, Voennaia Reforma v SSSR (1924-1925 gg.) [The Military Reform in the USSR (1924-1925)] (Moscow, 1958), pp. 40, 77.

⁵ N. Efimov, 'Komandnyi Sostav Krasnoi Armii' [The Red Army's Command Element]. In Bubnov, Kamenev and Eideman, II. 96, 102.

⁶ A.M. Iovlev, Deiatel'nost' KPSS po Podgotovke Voennykh Kadrov [The CPSU's Activity in Preparing Military Cadres] (Moscow, 1976), p. 77.

sought to resolve this problem by introducing a mixed cadre-territorial system, the latter units of which combined civilian labour with periods of military service over a period of several years. While the quality of the territorial units often left much to be desired, the Soviets had little alternative but to press ahead with this system of recruitment, which soon came to occupy an important place in the armed forces. By the end of 1923 territorial units accounted for 17.2% of all rifle divisions, a figure which had increased to 56% by 1928.⁷

It was fortunate, given the army's weakened state, that the USSR was not involved in any major conflicts during the decade. The only clash of note occurred in late 1929 in Manchuria, where Soviet troops fought a brief war with the Chinese army. The dispute grew out of a local warlord's seizure of the Chinese Eastern Railroad, which belonged to the USSR and provided the shortest route between Vladivostok and the interior. The Soviets reacted by forming the Special Far Eastern Army, commanded by the Civil War hero V.K. Bliukher. The Soviet offensive to regain the railroad began in October and lasted a little more than a month, ending in a complete victory over the technically-inferior Chinese. An agreement between the two countries in December restored the prewar situation, after which Soviet troops returned home.

Important changes were also taking place in the higher military organs during these years. Overall control of military affairs continued to be exercised through the Council of Labour and Defence and the RVSR, which in 1923 became the RVS USSR. The RKKA completely dominated the structure of the People's Commissariat for Military and Naval Affairs, and the Worker's and Peasant's Red Fleet (RKKF) played a distinctly secondary role. The air force was even more closely tied to the ground forces, existing merely as a directorate (*upravlenie*) within the defence commissariat. In 1921 the All-Russian Main Staff, a wartime administrative organ, was merged with the RVSR Field

⁷ Zakharov, p. 174.

Staff to form the RKKA Staff, which continued to be run by P.P. Lebedev, an imperial General Staff Academy graduate. He was succeeded in this post by the impeccably proletarian Frunze in 1924, followed a year later by Kamenev, another academy graduate. Tukhachevskii, who in spite of his own 'specialist' background, was always one of the more virulent exponents of the party line, occupied the post from 1925 to 1928, and upon his resignation was succeeded by the 1910 academy graduate, B.M. Shaposhnikov. The post of Glavkom was abolished in 1924 and Kamenev was relegated to the military inspectorate, although he continued to hold a number of important positions until his death in 1936.

In a highly-politicised society like the USSR it would have been surprising had the armed forces managed to remain aloof from the fierce intra-party quarrels which characterized the period from the onset of Lenin's fatal illness to Stalin's consolidation of power at the end of the decade. On the contrary, the armed forces were torn by the same factional battles as the party, and as the only reasonably coherent institution apart from the party within the shattered society, their support was invaluable in the struggle for power. This fact and the presence of some of the major contenders on both political and military bodies, ensured that the armed forces would be drawn into the political strife of the time, with significant repercussions for individuals and policies alike.

Lenin's great authority within the party had usually managed to curb the institutional and personal rivalries of its leading figures. However, his lingering illness from the end of 1922 allowed these pent-up tensions increasingly full play. Central to the struggle to succeed Lenin was Trotskii, who as People's Commissar for Military and Naval Affairs, member of the Politburo, member of the Council of Labour and Defence, and chairman of the Military Revolutionary Council, wielded enormous power within the party and the armed forces. He was opposed by the triumvirate of G.E. Zinov'ev, L.B. Kamenev (no relation to the commander-in-chief) and Stalin, the latter of whom had become the party's general secretary in 1922. The three began to

savagely attack the war commissar even before Lenin's death, taking skillful advantage of the latter's unpopularity within some segments of the party, due to his arrogance and belated conversion to Bolshevism in 1917. These efforts bore their first real fruit in early 1924, with the removal of Trotskii's ally, V.A. Antonov-Ovseenko, as chief of the RVS Political Directorate and his replacement by A.S. Bubnov, who proceeded to subordinate the armed forces more closely to the party apparatus increasingly controlled by Stalin.

Trotskii's position had already been weakened by his wartime sponsorship of the military specialists and the wrangle over the formulation of a military doctrine for the Red Army (see section B). The triumvirate was able to manipulate disagreements over these questions and paint the war commissar as a 'reactionary'. Matters came to a head shortly after Lenin's death in January 1924, when his enemies succeeded in ousting Trotskii's deputy on the RVS and replaced him with Frunze, who certainly had no reason to support his new chief. And although Trotskii continued as RVS chairman, he was effectively excluded from most day-to-day activity, and it fell to Frunze to carry out the introduction of the cadre-territorial system and the concept of 'unified command', which greatly increased the unit commanders' powers vis a vis the political officer. Under these circumstances, Trotskii's final humiliation was almost anticlimactic, when he was replaced by Frunze in January 1925 as both war commissar and chairman of the RVS.

However, Frunze's tenure at the top of the country's military establishment lasted a mere nine months. The war commissar, only 40 years old, suffered from stomach ulcers and was ordered by the Politburo, against his will, to undergo an operation. An overdose of chloroform brought on a heart attack and Frunze died on 31 October 1925. He was succeeded by K.E. Voroshilov, the commander of the Moscow Military District and a follower of Stalin's from the early days of the Civil War.

Voroshilov's appointment, while a political coup for the Stalin faction, ultimately proved disastrous for the armed forces and the

country's defence as a whole. Under the war commissar's inept management the Soviet military establishment became the obedient tool of Stalin's personal dictatorship, although this did not save it from the tyrant's murderous purge of 1937-38, in which Voroshilov played a leading role. In other areas, Voroshilov's innate conservatism in military affairs repeatedly stymied the efforts of many of the Red Army's brightest minds to bring the armed forces up to the demands of modern war. His devotion to the outdated cavalry methods of that conflict led him to promote to high posts such military non-entities associated with that arm as Budennyi and E.A. Shchadenko, whom one historian aptly called 'the new type of political soldier, the ex-NCO associated with Stalin, possessing a rudimentary military education, ... but a ruthless power of estimating situations in terms of narrow loyalties'.⁸ Voroshilov's incompetence was made manifest in the Red Army's poor showing during the 1939-40 war with Finland, and he was finally relieved soon after. However, 15 years of mismanagement could not be overcome so easily and Voroshilov must bear a large burden of the responsibility for the disasters of 1941.

Thus Frunze's death was extremely opportune for Stalin, and a number of historians have speculated on the dictator's complicity in the former's demise.⁹ Stalin's marriage of convenience with his nominal allies was also coming to an end. The breach in the trio's partnership came out into the open at the 14th party congress in December 1925, in which the so-called 'left opposition' of Zinov'ev and Kamenev was decisively defeated by Stalin and the party machine. The two, along with Trotskii, were in turn expelled from the Politburo the following year. This was followed by two years of relative peace, characterized by Stalin's adherence to Lenin's moderate New Economic Policy (NEP). However, this interlude was not fated to last and Stalin next turned on his erstwhile supporters, N.I. Bukharin and

⁸ Erickson, p. 179.

⁹ *Ibid*, pp. 199-200; R. Medvedev, 'O Smerti M.V. Frunze i F.E. Dzerzhinskogo' [On the Death of M.V. Frunze and F.E. Dzerzhinskii], *V-Izh* (1989), no. 3, pp. 54-61.

A.I. Rykov, now styled the 'right opposition', who had become alienated by the general secretary's harsh ways and his increasingly radical program for transforming industry and agriculture. They were defeated after a brief battle and by the end of 1929 Stalin was the undisputed master of the party and the army.

B. Doctrinal and Strategic Debates

One of the chief tenets of Marxist-Leninist military thought holds that a state's military system is a product of the economic relationships between classes, whether the society in question is characterized by slave-owning, feudal or capitalist productive relationships. It was in this vein that Friedrich Engels wrote in 1851 that 'The emancipation of the proletariat ... will have its own special expression in military affairs and will create its own special and new military method'.¹⁰ And just as the French Revolution, for example, had ushered in radical changes in the conduct of war, so the Soviets believed that their revolution would bring about similar changes. However, just as a number of pre-revolutionary developments in France reached maturity only under Napoleon, the same was true of the Soviet Union after the Civil War. Here, the Red Army, for all of its radical sloganeering, continued to draw heavily from the tsarist military legacy.

This link was particularly evident in the army's early attempts to elaborate a military doctrine tailored to the needs of the new, proletarian state. This effort was, in many respects a continuation of the doctrinal debate which took place in the tsarist army in 1911-12. Among those who took an active part in this discussion were such future military specialists as A.M. Zaionchkovskii, M.D. Bonch-Bruevich and Neznamov. However, this promising movement soon fell victim to the same reaction which had driven the 'Young Turks' from the General Staff Academy, and the tsar expressly forbade further

¹⁰ F. Engel's, Izbrannye Voennye Proizvedeniia [Selected Military Works] (Moscow, 1957), p. 635.

debate on the subject.¹¹ The discussion was resumed briefly in 1920 on the pages of Military Affairs, the house organ of the Red Army's more intellectual military specialists before it was closed down that same year for views later described as 'non-Marxist and under the influence of the old military thinking'.¹² However, this episode was merely the prelude to the more intense and militarily-significant controversy which followed.

The first shots in the renewed debate were fired at the 10th party congress in March 1921, during which Frunze and S.I. Gusev presented their proposals for the reorganisation of the Red Army in peacetime. The most important point in their program was Frunze's call for transforming the army into a 'unified organism', held together 'by a unity of views as to the character of the military tasks facing the republic', which he called the 'unified military doctrine' (edinaia voennaia doktrina).¹³ At this time the imposition of an official system of military views was a major demand of the army's more earnestly proletarian military elements, of which Frunze himself was the most outstanding example. It was also a thinly-veiled challenge to Trotskii, who had aroused a good deal of enmity among this group with his enthusiastic sponsorship of the military specialists during the Civil War. There were more personal reasons as well. The pair's antipathy towards Trotskii dated from their service on the Eastern Front in 1919, when they successfully reversed the war commissar's removal of Kamenev as front commander during the spring counteroffensive. However, Trotskii's authority could not be overcome at this point and the proposals were withdrawn.

But Frunze refused to be silenced for long and he renewed his

¹¹ P.A. Zhilin, ed., Russkaia Voennaia Mysl'. Konets XIX--Nachalo XX V. [Russian Military Thought. The End of the XIX--Beginning of the XX Centuries] (Moscow, 1982), pp. 143-46; and his 'Diskussia o Edinoi Voennoi Doktrine' [The Discussions About a Unified Military Doctrine], V-Izh (1961), no. 5, pp. 61-74.

¹² O.Iu. Shmidt, ed., Bol'shaia Sovetskaia Entsiklopediia [The Great Soviet Encyclopedia] (Moscow, 1926-47), XII. 217.

¹³ Frunze, II. 3.

attack later that year in a major article, 'A Unified Military Doctrine and the Red Army', which developed his ideas on the subject more fully. Most importantly, Frunze defined his doctrine as

... that teaching adopted in the army of a given state, which establishes the character of the construction of the country's armed forces, the methods of the troops' combat training and their leadership on the basis of the state's prevailing views as to the character of the military tasks before it and ways of solving them, which spring from the class essence of the state and which are determined by the level of development of the country's productive forces.¹⁴

Frunze divided his doctrine into two parts--the technical and the political. The first is concerned with the more mundane aspects of military life and embraces such matters as troop training, organisation and military equipment. The second, and more important, is a product of the state's political system, which is determined by its dominant social class. Couched in these terms, Frunze's doctrine also constituted a clever appeal to the army's class-conscious coterie of red commanders, which had always resented Trotskii's employment of the politically-suspect military specialists.

The peripatetic war commissar was not slow in rising to the challenge and he summoned all of his considerable polemical skill to rebut Frunze's proposal. In an article venomously entitled 'Military Doctrine, or Pseudo-Military Doctrinairism', Trotskii proceeded to heap scorn on what he regarded as the juvenile ideas of Frunze and his allies. He charged that 'Only hopeless doctrinaires think that the answers to the problems of mobilisation, organisation, instruction, strategy and tactics can be derived from ... the premises of sacred "military doctrine"'.¹⁵ On the contrary, he warned, 'Military affairs are a very empirical, very practical matter', and that attempts to codify the art of war into a set of eternal laws run the

¹⁴ Ibid, p. 8

¹⁵ Trotskii, Kak Vooruzhalas', III. Book II, p. 238.

risk of stultifying the development of thought in this area.¹⁶

It would be a mistake to conclude from this passage, however, that Trotskii was advocating anything like freedom of expression within the army, or that he was any less insistent on the principle of party control of the armed forces than his opponents. His political credentials on this score were every bit as good as Frunze's, and he had shown himself on several occasions to be utterly ruthless in carrying out the party's directives. His reasons for opposing Frunze's doctrine were more subtle than his words would indicate and had as much to do with the emerging political struggle within the party as with the issue at hand. The vehemence and length (30 pages) of his reply suggest that Trotskii may well have suspected Frunze of being the cat's paw in an attempt to undermine his control of the armed forces.¹⁷

It was a considerably chastened Frunze who returned to the question in early 1922, with a lengthy article entitled 'The Military-Political Education of the Red Army'. Frunze had been deeply stung by Trotskii's criticisms and now went to some lengths to distance himself from his doctrine's more extreme tenets. A major concession involved the word 'doctrine' itself, which, Frunze now admitted, indeed 'smacks of something doctrinaire, opposed to that spirit of creativity, initiative and activity', which he believed should be the Red Army's hallmark.¹⁸ This acknowledgement set the stage for a number of significant concessions on the points so beloved of the red commanders. Among the most important of these was the belief in the existence of a uniquely proletarian military art. Frunze was now ready to admit that the Red Army 'had introduced nothing new into the fields of tactics and strategy', and for the time being, at least, would have to make do with the equipment and

¹⁶ *Ibid*, p. 219.

¹⁷ Trotskii seems to have felt no great personal dislike for Frunze, although he considered him prone to abstractions and a poor judge of people. See L.D. Trotskii, *Moia Zhizn'* [My Life] (Berlin, 1930), II. 254.

¹⁸ Frunze, II. 35.

methods of the old regime.¹⁹ It was a bitter pill for Frunze and his allies to swallow, but they would have their revenge.

Neither Trotskii nor Frunze had much opportunity or wish to debate the issue further after 1922. More immediate concerns, such as the army's ongoing demobilisation and the crisis in the party caused by Lenin's illness, took precedence over such seemingly abstract concerns. Intellectually, Trotskii was the clear winner and had compelled Frunze to retreat from or modify some of his more extreme statements. The latter's capitulation on the main point of contention was made complete at a conference of military delegates to the 11th party congress in March 1922, at which Trotskii was also able to engineer the removal of Frunze's ally, Gusev, as head of the armed forces' political directorate and replace him with his own man, V.A. Antonov-Ovseenko. Here Frunze conceded that 'there can be no kind of revolution in the sense of creating an independent proletarian tactics and strategy', due to the inability of the country's economy to meet all but the army's most basic needs. However, he consoled himself with the belief that with the recovery of the country's industry, the development of a uniquely proletarian military method was inevitable.²⁰

Ultimately, however, it was Frunze who replaced Trotskii as war commissar, just as it was his interpretation of military doctrine which was imposed, almost word for word, on the Red Army. This was because, despite his outward victory, the debate over military doctrine was deeply damaging to Trotskii's position in the army in a way which had little to do with the merits of the case and everything with the armed forces' ideological makeup and the ambitions of his enemies. At bottom, Frunze's proposal to create a proletarian military doctrine had an inherently greater appeal to the large number of politically-minded red commanders who had come of age during the Civil War and who constituted the largest and most ambi-

¹⁹ Ibid, p. 43.

²⁰ Ibid, p. 97.

tious of the army's various groups. This faction despised Trotskii for his intellectual arrogance and sponsorship of the military specialists, who occupied positions of power and influence which its spokesmen felt belonged to them by right. One such red commander later recalled that during this period 'A sort of underground opposition to Trotskii ... began to show its head both in the Party and in the Army. Its rallying points were Stalin and Voroshilov'.²¹ And whereas Trotskii seemed to relish insulting this group's theoretical pretensions, Frunze wisely appealed to its highly-developed sense of mission as the heralds of a new era in military affairs.

The doctrinal controversy, in turn, stimulated a wide-ranging debate among many of the army's leading theoreticians regarding the nature of a future war, the determination of which was one of the primary tasks of Frunze's doctrine. Prominent among those who took part were a number of former tsarist officers and their red counterparts. However, this was no mere academic discussion, but a matter of crucial importance to a military leadership which foresaw a renewed clash between the socialist and capitalist systems as inevitable. This apocalyptic mood was contained in a secret internal study, entitled Future War, prepared by Tukhachevskii's RKKA Staff apparatus in 1928. According to this study, in the event of a renewed capitalist assault on the USSR, the most likely belligerents would be Great Britain, France, Poland, Romania, Finland, the Baltic States and Italy. Another group, which included Germany, Czechoslovakia, Hungary, Bulgaria, Yugoslavia, Greece, Belgium, Japan and the United States, might be drawn into an anti-Soviet coalition at some point. The two remaining groups consisted of those countries which would remain neutral, and those, including China and the European colonial holdings, which would remain friendly with the USSR.²²

As the debate developed through the 1920s, the participants'

²¹ Barmine, p. 164.

²² Budushchaia Voina [Future War] [Moscow], 1928, TsGASA, fond 33988, opis' 2, delo 682, pp. 35-36.

attention increasingly focused on four major issues. The first of these concerned whether or not a future war would be a protracted struggle on the model of the First World War, or one resolved in a quick campaign. The second dealt with whether or not the Red Army should pursue an offensive or defensive strategy. Third, would a future war see a repetition of the Great War's positional stalemate, or would the art of maneuver reassert itself as it had during the Civil War? Finally, would a future war be another clash of predominantly infantry armies, or would they be replaced by smaller, more mechanised forces? All of these problems lay squarely within the realm of military strategy and dealt with the nature and conduct of war at the highest level. Their resolution, for better or worse, would inevitably have a profound impact on the development of Soviet views on conducting operations.

The debate over the duration of a future war had its roots in the Red Army's defeat before Warsaw and the ebbing of the revolutionary tide elsewhere in Europe in the 1920s. This check forced the Soviets to face the facts of their own political isolation and caused them to make some adjustments to their revolutionary optimism. Also, the capitalist world's unexpected recovery and the Soviets' own dire economic straits injected a further note of caution into the regime's military pronouncements, along with a growing realisation that a future war, at least one involving one or more of the Great Powers, was likely to be an extended one. Thus even a man of Frunze's impeccably communist credentials could write in 1924 that a future war against the capitalist world would be a 'protracted and cruel contest, putting to the test all the economic and political foundations of the belligerent sides'.²³ He was seconded on this score by Tukhachevskii, who, in spite of his 'specialist' background as a junior officer, or perhaps because of it, had emerged as one of the 'redder' commanders in the debate. However, even the normally impetuous Tukhachevskii was forced to conclude that in a future war

²³ Frunze, II. 133.

the Soviet Union would face an economically superior capitalist coalition, and that the ensuing struggle would be 'protracted, stubborn and bitter'.²⁴

These conclusions, not surprisingly, found a good deal of support among an erudite group of former officers, whose professional training and relative lack of revolutionary zeal inclined them towards a more sober view. Among these was A.A. Svechin, an imperial academy graduate and a bitter enemy of the more radical commanders. Svechin's holistic view of war led him to conclude that a prolonged conflict was inevitable, due to the mobilisation constraints inherent in modern economies and the extended time needed to accumulate the necessary resources. This, he argued, is because the nation's military economy always lags behind the overall growth in productive forces and the former's period of maximum exertion cannot usually be attained before the war's second year.²⁵ This would create a situation similar to that of the Western Allies during the greater part of 1915, when they were forced to forgo major offensive operations due to the exhaustion of prewar stockpiles. Svechin's colleague, Shaposhnikov, who had accommodated himself more successfully to the new regime, also stressed economic factors. Given the Soviet Union's reigning weaknesses in this regard, he urged the country's leadership to prepare for a 'protracted and intensive exertion' in a war which would last at least as long as the 1914-18 struggle.²⁶

The same held true of a war against the USSR's smaller western neighbors, particularly, as if expected, they were supported by the Great Powers. Incredible as it seems to a generation accustomed to viewing the former Soviet Union as a military superpower, Soviet military planners of the 1920s had to seriously consider the military

²⁴ Tukhachevskii, I. 255.

²⁵ A.A. Svechin, Strategiia [Strategy], 2nd ed. (Moscow, 1927), p. 43.

²⁶ B.M. Shaposhnikov, Mozg Armii [The Brain of the Army] (Moscow, 1927-29), I. 245; B.M. Shaposhnikov, Doklad Nachal'nika Shtaba Predsedateliu Revoliutsionnogo Voenного Soveta Soiuz S.S.R. [The Chief of Staff's Report to the Chairman of the Revolutionary Military Council of the USSR] [Moscow], 19 March 1929, TsGASA, fond 4, opis' 2, delo 515, p. 4.

strength of Poland and Romania. Thus the authors of Future War calculated that both Estonia and Latvia could be defeated in a single, quick campaign, due to their small territory and the insignificant size of their armies. Poland, however, could be expected to field as many as 70 divisions and could only be defeated in an arduous struggle lasting as long as three years, only after which could Romania be successfully engaged. The only hope the Soviets had of shortening such a war lay in achieving an overwhelming superiority in men and materiel and supplying the army with the necessary transportation resources. These, the study indicated, the Red Army neither possessed, nor was likely to have in the near future.²⁷

The surprising degree of unanimity as to the notion of a prolonged war stood in sharp contrast to the bitter polemical debates which raged about some of the other questions. The resulting consensus was no accident, however, and was conditioned in large part by the experience of the World War and the Red Army's own protracted struggle in 1918-20. The Great War had convincingly demonstrated that modern wars could no longer be won in a single campaign, and that victory demanded an intensive and sustained effort, in which a state's economic and political measures were as important as its military ones. The Civil War only reaffirmed those lessons, even though both sides had relied on a more primitive industrial base than had the belligerents of 1914-18, and the Bolsheviki's victory was due as much to their enemies' political disarray as to their military superiority.

That the Red Army was able to accept the likelihood of a protracted war showed that its leaders could tolerate some limitations on their revolutionary optimism, provided they were faced with incontrovertible facts which did not clash excessively with their ambitions. This was certainly the case in the 1920s, when the Soviet Union, confronted with its own political, economic and military inferiority, had no choice but to accept the premise of a prolonged

²⁷ TsGASA, fond 33988, opis' 2, delo 688, pp. 22, 57, 60-61.

conflict and to prepare for it accordingly.

However, this consensus was overshadowed by the bitter struggle over whether the Red Army should adopt an offensive or defensive strategy in a future war. In this area, more than in any other, political considerations played a role in the final outcome. This was because more than any other, the question of offence versus defence went to the very heart of the Red Army's conception of itself and what its leaders believed it should be.

As in so much else, the controversy had its origins in the initial debate over military doctrine. Here, Frunze had admitted that the Red Army remained technologically inferior to the armies of the capitalist countries. However, he believed that this advantage could be negated by what he regarded as the Red Army's inherently offensive character, which was a product of its proletarian class composition. From this he concluded that the proletarian army 'can and will attack', and that the Red Army should be trained in the spirit of 'energetic, decisively and daringly conducted offensive operations'.²⁸ This was the essence of what became the extreme 'red' position, although Frunze's own ideas were to evolve significantly from this unsophisticated beginning.

The impetus for some of this change came from his enemy Trotsky, whose caustic attacks did much to quell Frunze's revolutionary ardor. The war commissar was particularly contemptuous of Frunze's attempts to extract an inherently offensive strategy on the basis of the Red Army's class composition and its experience during the Civil War. Trotsky sought to undermine the notion of the army's offensive character by pointing out that the Red Army had not only not invented 'offensiveness' (*nastupatel'nost'*), but had actually learned from the Whites the art of 'rapid breakthroughs, flanking movements and penetrations into the enemy rear'.²⁹ Moreover, he added, strategic defence and retreat had been major components of Soviet military

²⁸ Frunze, II. 17.

²⁹ Trotsky, *Kak Vooruzhalas'*, III. Book II, p. 232.

strategy during the war, as the Red Army was forced more than once to abandon large areas on one front in order to build up a force for a counteroffensive on another. Trotskii concluded this broadside by denouncing the idea that an offensive strategy was peculiar to the Red Army and not the product of objective conditions prevailing in the Civil War, which had affected both sides equally.³⁰

However, Frunze was more hesitant to concede this point to Trotskii, and his modified position was hedged with reservations indicative of his reluctance to abandon a belief so dear to the militants in his own camp. The most he would do to temper his offensive-mindedness was to admit the expediency of a retreat under certain circumstances. However, he insisted that such a retreat be viewed merely as a 'feature' of an overall offensive strategy and a forced preliminary to launching a 'new and decisive offensive'.³¹ Frunze, as this example indicates, was maturing as a military thinker, although he was not entirely free of political prejudices, and his formula for adopting the defensive only under duress soon became standard policy in the Red Army.

The controversy soon shifted to the merits of the so-called 'strategy of destruction' (*strategiia sokrusheniia*) versus the 'strategy of attrition' (*strategiia izmora*). These terms came to define the debate over an offensive or defensive strategy, although in ways which could easily be misleading. The debate also came to be personified in the speeches and writings of the decade's two outstanding strategic theorists, Svechin and Tukhachevskii.

Aleksandr Andreevich Svechin was born into a military family in 1878 and graduated from an artillery school in 1897. He finished the General Staff Academy in 1903 and served briefly in Manchuria. Between wars Svechin occupied a number of command and staff positions and began a long and fruitful scholarly career as well. During the World War he served as a regimental and division commander and as

³⁰ *Ibid*, pp. 232-33.

³¹ Frunze, II. 49

chief of an army staff. Svechin joined the Red Army in 1918 and served briefly as chief of the All-Russian Main Staff, after which he devoted himself entirely to academic work in various military academies. During the 1920s he produced the multi-volume History of Military Art, The Evolution of Military Art, and his famous Strategy, which remained the single most important work on the subject in the Soviet Union until the 1920s. As a theorist, Svechin was the most outstanding representative of the imperial military tradition in the Red Army, and his erudition and breadth of knowledge far exceeded that of any of the red commanders who so despised him, as well as many of the younger specialists who sided with them. However, a man of Svechin's forthright views could not possibly survive what was coming in the army and he was consumed, as were thousands of others, by the vast killing machine and died in 1938.

Svechin was an unabashed defender of the strategy of attrition, which might just as easily be termed the strategy of the 'indirect approach', in which such concerns as 'Geographical points, embodying political and economic interests', become paramount.³² The strategy of destruction, on the other hand, is the strategy of immediacy, which seeks a decision in the shortest time possible by the application of the maximum force at the decisive point. The strategy of destruction is unilinear and sees the destruction of the main enemy force or coalition partner as the only correct solution. According to Svechin, in its violent, headlong pursuit of a rapid decision, the strategy of destruction disregards 'all secondary interests and axes, all geographical goals'.³³ And whereas the destructive approach recognizes no impediments in its search for an overwhelming victory, the strategy of attrition takes into account any number of military, political and economic constraints. And while this approach eschewed an immediate military decision as inexpedient, it was far from being a defensive strategy, as many of Svechin's critics charged. On the

³² Svechin, Strategiia, p. 181.

³³ Ibid, p. 174.

contrary, Svechin wrote, the strategy of attrition may pursue the 'most decisive ultimate goals', and should never be confused with a war of limited aims.³⁴ Rather, the strategy of attrition would follow the path of least resistance, gradually accumulating political, economic and military advantages, which would enable it eventually to deliver the final 'knockout' blow. Svechin, by way of illustration, criticized the Western Allies' 'destructive logic' in World War I of Paris-Berlin with the preferred and more gradual attrition strategy of Paris-Salonika-Vienna-Berlin.³⁵

Nevertheless, it is hard to deny that a certain defensive bias is inherent in the strategy of attrition, particularly during the opening stages of the war. Trotskii had made this point in 1922 during the original doctrinal debates. This was the war commissar at his most 'defensive', arguing that in the event of war with a technologically-superior enemy possessing greater initial mobilisation capabilities, Soviet strategy should be essentially defensive. He counselled that in such a case the Red Army should withdraw into the country's vast spaces in order to gain time and draw upon its greater recruiting base, which would ultimately allow it to launch a counter-offensive.³⁶ Svechin would later agree with the war commissar, arguing that the absence of 'geographical values' along the Soviet Union's western frontier might justify a withdrawal at the beginning of a war.³⁷ A.I. Verkhovskii, Svechin's academy colleague, was more explicit in his recommendations and maintained that in such a situation it would be more expedient to withdraw and give up Minsk and Kiev than to take Belostok and Brest.³⁸ Unfortunately, such statements left their proponents open to charges of 'defensivism' and

³⁴ *Ibid*, p. 41.

³⁵ *Ibid*, p. 181.

³⁶ Trotskii, *Kak Vooruzhalas'*, III. Book II, p. 256.

³⁷ Svechin, *Strategiia*, p. 165.

³⁸ A.I. Verkhovskii, *Osnovy Nashei Taktiki. Ogon', Manevr, Maskirovka* [The Fundamentals of our Tactics. Fire, Maneuver, Deception] (Moscow, 1928), p. 131.

lack of revolutionary spirit, which was by no means an idle charge in those days. It is particularly ironic then, that long after such ideas had been declared anathema, the Red Army was forced by circumstances to adopt an extreme variation of this strategy in 1941-42.

The man who led the attack against these views was Tukhachevskii, who had become the unofficial spokesman of the red commanders in spite of his own 'specialist' background. Moreover, he had even been born into the provincial gentry in 1893. Upon graduation from a tsarist military school in 1914, he served briefly in World War I until his capture the next year. Tukhachevskii succeeded in escaping two years later, and upon returning to Russia he aligned himself with the Bolsheviks. He held a number of high-ranking positions during the Civil War, including the command of the Western Front during the latter's ill-fated invasion of Poland. The recriminations which followed that campaign made him several powerful enemies (Stalin, and Voroshilov) , who came to oppose many of his initiatives and who ultimately precipitated his downfall. Tukhachevskii also served the Soviet cause in liquidating the Kronshtadt mutiny and ruthlessly putting down a peasant uprising in the Tambov area in 1921. Following a period of mixed command and academic activity, he headed the RKKA Staff from 1925 to 1928. Tukhachevskii, as the result of a policy dispute with Stalin and Voroshilov, resigned this post and was relegated to a sort of military exile as commander of the Leningrad Military District, from whence he was summoned back to Moscow in 1931 to take charge of the armed forces' ambitious rearmament program. In 1935 he was created a marshal and the following year first deputy defence minister and chief of the RKKA directorate of military training. Tukhachevskii's fall, however, was even swifter. In May 1937 he was unceremoniously dismissed from his central administrative duties and relegated to the command of the Volga Military District. Shortly afterwards he was arrested, quickly tried and executed.

Tukhachevskii, in what could only have been a reply to Svechin and his followers, denounced in his 1926 brochure 'Problems of Modern Strategy', as 'military nihilism' the attitude which 'rejects the

possibility of changing the correlation of forces by military means', and reduces the entire conduct of war to economic competition alone.³⁹ This blast, however, indicated that its author had either completely misread Svechin or was deliberately distorting his opponent's views in order to score debating points. Svechin had never been an unquestioning advocate of a defensive strategy in all cases, although he clearly felt that the latter more closely suited the Soviet Union's existing capabilities. Svechin, in the same way he had opposed the imposition of a military doctrine before and after the revolution, was trying to educate the Red Army in a broader spirit of intellectual speculation and save it from doctrinaires of all stripes. Above all, his was a call for realism and moderation in military affairs. Ironically, his advocacy of the maximum flexibility in the pursuit of unchanging ends showed Svechin to be a better Leninist than many of his politically-correct opponents.

Tukhachevskii was much closer to the mark, however, in doubting the USSR's capacity to wage the kind of incremental war preferred by Svechin. On this occasion, Tukhachevskii proved to be the better practical strategist, warning that the Soviet Union could not afford 'to endlessly prolong its war', and that it must strive to achieve a military victory by the 'swiftest and most economical means' possible, through an offensive strategy.⁴⁰ Svechin, for all of his undoubted erudition, seriously overestimated the Soviet Union's ability to wage a war of attrition. Poor and all but isolated in the mid-1920s, the USSR was in no position to wage a protracted, eighteenth century-style war against a superior capitalist coalition. This was a particularly egregious error for someone with Svechin's knowledge of military history who failed to see how the Soviet Union's position resembled that of Germany in 1914, in which the only alternative to a slow defeat lay in a quick offensive war to defeat the enemy coalition before it could mobilize fully.

³⁹ Tukhachevskii, I. 257.

⁴⁰ Ibid, p. 257.

The response to this in other quarters varied widely and often depended as much on political considerations as military ones. One of the most extreme positions was taken by V.A. Melikov, who approvingly called the strategy of destruction 'the soul of revolutionary class war'.⁴¹ He was supported this instance by his literary associate N.E. Kakurin, a former tsarist colonel and 1910 General Staff Academy graduate. Kakurin, writing in 1921, declared that 'future class wars will always be offensive', and will be characterized by 'extreme energy, decisiveness and rapidity of execution'.⁴² A more moderate appraisal was offered by Kakurin's academy classmate Shaposhnikov, whose skill in negotiating the treacherous currents of Red Army politics ranks him as one of its great survivors. He artfully managed to keep a foot in both camps when he wrote that 'a future war will take on the character of an attrition struggle', although he did not altogether exclude the strategy of destruction.⁴³ Frunze, for his part, had also moderated his tone and sought to strike a balance between the two camps. By 1924 he had lost much of his former offensive spirit and was advocating a 'transition from the strategy of lightning, decisive blows to a strategy of exhaustion' (*strategiia istoshcheniia*). This was a significant concession to Svechin's point of view. But for political reasons Frunze could not renounce entirely an offensive strategy and sought to salvage his position by stressing the shakiness of the enemy rear. A future war with the Soviet Union, according to this view, would so exacerbate class conflicts within the capitalist bloc that a determined offensive by the Red Army might so undermine the enemy that victory would be assured.⁴⁴ However, Frunze's clumsy compromise found few followers in either camp.

⁴¹ V.A. Melikov, Marna-1914 Goda. Visla-1920 Goda. Smirna-1922 Goda [The Marne-1914. The Vistula-1920. Smyrna-1922] (Moscow, 1928), p. 96.

⁴² N.E. Kakurin, Strategiia Proletarskogo Gosudarstva [The Strategy of the Proletarian State] (Smolensk, 1921), pp. 22, 28.

⁴³ Shaposhnikov, Mozg Armii, I. 245.

⁴⁴ Frunze, II. 133-34.

In fact, the increasingly tense atmosphere of the late 1920s allowed little scope for moderation of any kind in a party and army which were becoming more intolerant of deviations from the general line. Svechin was to come under even harsher criticism, as the advocates of the destruction strategy gained the upper hand from the middle of the decade onwards. Their victory was formally sealed at the first all-union congress of the army's Military-Scientific Society in 1926, whose delegates overwhelmingly supported Tukhachevskii's formula. In retrospect, it is hardly surprising that the Red Army came to endorse such an approach, given the aggressive nature of Marxist-Leninist thought, and the primacy of the offensive was fundamental to Soviet military art from the beginning. Henceforth the Red Army would devote almost exclusive attention to the offensive at all levels and relegate defensive preparations to the backwaters of military thought.

Closely tied to this question was the controversy over whether a future war would see a reversion to positional fighting, or whether maneuver would predominate.

Trotsky, for his part, was particularly contemptuous of those revolutionary parvenus who sought to project into the future the limited experience of the Civil War, particularly as concerned the Red Army's supposedly 'inherent' maneuver qualities. Such a notion was completely false, he maintained, and he pointed out that the Whites' strategy had been highly maneuverable from the start, due to their smaller numbers, and it had fallen to the Red Army to learn the art of maneuver from its enemies. Whatever maneuver qualities the army had demonstrated, he continued, were less the product of revolutionary virtue than of the objective conditions of the war itself, which had facilitated wide-ranging maneuver. Trotsky concluded that one cannot consider maneuverability (*manevrennost'*) 'a special expression of the Red Army's revolutionary character'.⁴⁵

The war commissar's attack had its usual sobering effect on

⁴⁵ Trotsky, *Kak Vooruzhalas'*, III. Book II, pp. 228-29.

Frunze, who had begun his peacetime career as an extreme proponent of maneuver. Frunze's retreat was a fence-straddling compromise in which he sought to reconcile his heart with his head. He now urged his followers to study the positional phase of the Great War, although he reaffirmed his belief that maneuver would predominate in a future conflict involving the Soviet Union.⁴⁶ However grudging, Frunze's acceptance of the First World War's positional phase was significant. Now the trench deadlock on the Western Front could no longer be so easily dismissed as evidence of the failure of 'bourgeois' military art, but as a legitimate, if regrettable, alternative brought about by objective conditions which might someday have application to the Red Army.

Frunze's shift also made it possible for a number of other commanders to make the transition to a more realistic point of view. One of these was Tukhachevskii, who, not surprisingly, had started as a maneuver advocate of the Frunze type. In 1923 he was adamantly opposed to any form of positional warfare and declared that a future war would feature 'decisive and overwhelming' maneuver.⁴⁷ By 1928, however, he had retreated considerably from this position. The monumental Future War, edited by Tukhachevskii in his capacity as Chief of the RKKA Staff, now dismissed as 'simplified' those views which held that the Red Army was uniquely qualified to wage a war of maneuver. Moreover, the study directed the army to examine in particular the experience of the Eastern Front during 1914-17, while the Civil War was to be studied chiefly for the influence of political factors.⁴⁸ This could not have been an easy step, as the notion of a war of maneuver was so tightly bound to the red commanders' strategy of destruction. Tukhachevskii's new formula was also significant for the way it so obviously denigrated the experience of the Civil War in favor of the more technically-advanced fighting of

⁴⁶ Frunze, II. 46-47.

⁴⁷ Tukhachevskii, I. 110.

⁴⁸ TsGASA, fond 33988, opis' 2, delo 688, pp. 53-54.

World War I as a guide for the Red Army's future development.

Svechin, not surprisingly, found the notion of a war of position more palatable, given his preference for the strategy of attrition. Svechin believed that the next war might well follow the pattern of the recent World War, in which an initial period of maneuver would then give way to a 'loss of offensive spirit' and the adoption of positional methods, as the weight of material factors began to assert itself. He predicted, however, that a positional war in the East would differ from one in the West, just as it had in the Great War, and for much the same reasons: the theatre's greater spatial scope and the lower technical saturation of the front. This would result in 'softer forms' of positional warfare, such as predominated on the Eastern Front in the winter of 1914-15, and which still offered some scope for maneuver.⁴⁹

The idea that a future Eastern Front would differ from one in the West was readily accepted by Red Army theorists of various backgrounds. This is understandable, as it allowed a measure of hope that the army could avoid the horrors of a trench stalemate. One of these was the promising young staff officer V.K. Triandafillov. He believed that even though the favorable conditions of 1914 and 1920 would not be repeated, there still remained considerable scope for 'broad maneuver activities', even though these would develop more slowly than in the West. This would involve, in particular, the widespread employment of large cavalry formations against the enemy's flanks and rear.⁵⁰ The former officer and imperial staff academy graduate N.Ia. Kapustin adopted a somewhat more optimistic view in 1927. Kapustin predicted that 'spatial conditions alone' will impart to operations 'a greater scope in both front and depth' than even the opening weeks of the 1914 campaign in the East.⁵¹ Verkhovskii was

⁴⁹ Svechin, *Strategiia*, pp. 171, 189.

⁵⁰ Triandafillov, 'Vozmozhnaia', pp. 42-43.

⁵¹ N.Ia. Kapustin, *Operativnoe Iskusstvo v Pozitsionnoi Voine* [Operational Art in a Positional War], (Moscow and Leningrad, 1927), p. 14.

even more sanguine and saw great prospects for maneuver in a future war in connection with the army's mechanisation. He predicted that the opening battles of a future war would resemble those of 1918-20, and called the Red Army's 1920 offensive against Poland the 'prototype' of future battles.⁵² This position, while wildly at odds with the army's existing capabilities, proved to be remarkably prophetic and was a fairly accurate forecast of several of the Soviets' major offensive operations during 1944-45.

The minor disagreements as to the extent of maneuver in a future war only serve to emphasize the fair degree of unanimity which existed on this point towards the end of the 1920s. By 1928 the Red Army had arrived at a compromise of sorts in which a war of position was seen as a distinct possibility, although it was believed that the art of maneuver would ultimately reassert itself to a greater or lesser degree. Psychologically, it was probably asking too much of the generation of highly-ideological commanders which had emerged from the Civil War to consider the prospect of a positional stalemate with anything other than distaste. In much the same way, the belief in the prospects for maneuver was undoubtedly a source of consolation to an army painfully conscious of its own materiel inferiority.

The Soviet preference for a large citizen army had its political roots in the Bolsheviks' belief in the mass appeal of their program, which would, it was asserted, eventually lead the numerically-superior working class to victory. As much as any other, the idea of the 'nation in arms' was inherent in Soviet military thought, as was the companion notion of total war, involving the complete mobilisation of the state's human and other resources.

A corollary of this belief was the broad disdain felt in the Red Army for certain theories then current in the West, which advocated to varying degrees replacing the mass national army with a smaller, highly-mechanised force, staffed by a core of professional soldiers. Among those who objected to these ideas was Frunze, whose

⁵² Verkhovskii, Osnovy, p. 232.

views were of a political rather than a technical nature. He believed that by creating small professional armies the capitalist states were attempting to substitute technology for mass, in order to secure the loyalty of the armed forces by creating a caste of professional mercenaries. According to this view, the exacerbation of the class struggle in the West meant that the ruling classes could no longer rely on the loyalties of a mass army based upon universal military service. This conviction was fully in accord with the view that in a future war between the capitalist and communist camps, the latter would be able to count on significant working class support in the enemy rear.⁵³

The idea of a large national army found support in a more militarily-substantial fashion as well. Writing in 1927, Triandafillov sought to substantiate the need for a large army by analyzing the mobilisation capabilities of the Soviet Union's likely enemies. Triandafillov concluded that the improvements in production methods since 1918 had made it possible for the advanced capitalist nations to actually increase the percentage of the population drafted into the armed forces, compared with that of the First World War, making it likely that future armies would be even larger than during 1914-18. On a grimmer note, he concluded that large armies would continue to be necessary, as ongoing refinements in the means of destruction would lead to greater personnel losses, thus requiring larger drafts to maintain the army's strength.⁵⁴

However, the above should not be taken to mean that the Red Army rejected the idea of mechanisation. On the contrary, it impatiently awaited the time when the country's industrial base recovered sufficiently to supply the necessary numbers of tanks and aircraft to satisfy the dreams of the army's mechanisation advocates. One of these was Frunze, who declared in 1925 that a future war, 'to a

⁵³ Frunze, II. 40.

⁵⁴ Triandafillov, 'Vozmozhnaia', pp. 20, 34.

significant degree, if not completely, will be a war of machines'.⁵⁵ Another was Tukhachevskii, who had become an enthusiastic proponent of mechanisation in all its forms and who was to conduct his own experiments in armoured organisation as commander of the Leningrad Military District. By 1928 the former zealot was writing that 'revolutionary spirit, without the necessary equipment, cannot triumph in a future war'.⁵⁶ It was a significant statement on Tukhachevskii's part, showing not only how his thinking had matured, but also the direction in which he would lead the armed forces.

That direction was indicated most clearly on the pages of Future War, produced under Tukhachevskii's direction on the eve of the Red Army's massive mechanisation effort. However, in 1928 the army was still a largely infantry and cavalry force, with the more technical arms comprising only a small percentage of the total. A force as primitive as this lacked both the striking power and mobility to penetrate modern defences, or even the transportation means to maintain a successful advance to any appreciable depth, which raised the specter of a prolonged positional conflict. The study admitted the Red Army's shortcomings in this area and recommended that it be increasingly supplied with 'technical means, particularly the means of attack and suppression'. Among the measures listed were those increasing the size, power and mobility of the army's artillery park; introducing light, heavy and 'breakthrough' tanks; increasing the size of the air force; and strengthening the cavalry's firepower and armour.⁵⁷ By 1933 these recommendations would be well on their way to realization and would soon achieve a scope the authors had not dared dream possible.

In fact, there had never really been a serious debate over the question of mass and mechanisation, and the issue was resolved without the rancor which accompanied the era's other strategic

⁵⁵ Frunze, II. 343.

⁵⁶ Tukhachevskii, II. 27.

⁵⁷ TsGASA, fond 33988, opis' 2, delo 688, pp. 72-73, 93-94, 96.

controversies. Indeed, no one had seriously questioned the need for a large army, and the few proponents of a smaller, more mechanised force remained isolated and lacking in influence. Likewise, it had never been a question of if the Red Army would adopt a large-scale mechanisation program, but of when.

Thus by the end of the 1920s a theoretical compromise had been reached, which involved marrying Russia's traditional strength in numbers and the ideologically-correct reliance on a large army with the military necessity of pushing ahead with mechanisation in order to deal with future enemies on equal terms. There was really very little else the Soviets could do, as it would still be some time before the economy could hope to satisfy the army's technical needs. Likewise, the high command could hardly be expected to renounce its only asset--the country's enormous manpower reserves. With the benefit of hindsight, one may conclude that the compromise reached, however dictated by circumstances, was the most intelligent solution for the time, and one adopted by all the major belligerents during World War II.

By the close of the 1920s Soviet military thought had arrived at a more or less settled position regarding the four main strategic questions discussed here. Their resolution was personified in Tukhachevskii, whose evolution as a thinker mirrored many of the army's shifting views on strategic policy. Tukhachevskii best summed up this view in his 1928 article, 'War as a Problem of Armed Struggle', in which he predicted that in a future war

Decisive actions may be punctuated by positional phases, dividing one period of war from the other. A prolonged struggle, with the exertion of all economic and social forces and accompanied by the exacerbation of class contradictions, characterizes modern mass wars, in which both sides strive to decisively defeat the enemy's armed forces, employing enormous forces and means ...⁵⁸

In broad outline, these were the conclusions reached. However,

⁵⁸ Tukhachevskii, II. 23.

it is impossible to do justice to the intellectual complexity of these controversies in the small space allotted to them here. Also, the welter of political, bureaucratic and personal loyalties highlighted here are also, to a certain extent, artificial. Thus even the most vigorous supporters of the mass proletarian army did not reject the prospect of mechanisation, although for political reasons they were highly suspicious of similar efforts abroad. Likewise, the debate over the place of maneuver and positional warfare eventually found the participants separated by degrees of emphasis, in spite of the potential for disagreement due to ideological considerations. Also, as we have seen, the likelihood of a prolonged war was never seriously disputed, even by the proponents of an highly offensive strategy. As always, the main point of controversy concerned the question of the strategy of destruction versus the strategy of attrition, in which the myth of inherent proletarian offensiveness clashed repeatedly with certain theorists' more sober estimates of the Red Army's capabilities.

Nor should the reader view the strategic debate solely in terms of a 'fathers and sons' confrontation between a young 'red' cadre and an 'old guard' of former military specialists, although some of the more zealous red commanders certainly tried to present their case in this light, for reasons which varied from sincere conviction to outright careerism.⁵⁹ Such an approach is too simplistic.

A more useful and accurate means of understanding the final result is to focus less on the debate's confrontational aspects and more on the final synthesis of the opposing sides' views. As has been shown, the terms of the debate were not always distinct and there were numerous borrowings and changes of position along the way. Apart from the destruction versus attrition controversy, the results of these debates were never a clear-cut victory for one side or another, but rather the melding of their parts to produce a recognisable body of Soviet strategic thought. The resulting alloy, for

⁵⁹ Barmine, pp. 163-64.

better or worse, represented a fusion of much of the pre-revolutionary military legacy with the dynamism and aggressiveness of communist ideology. In turn, these strategic conclusions were to serve as the theoretical point of departure for the emerging Soviet theory of operational art.

C. The Shaping of Operational Art

As has been shown, the Soviet strategic debate of the 1920s ultimately led to a number of far-reaching conclusions regarding the nature of a future war. The most important of these from the operational point of view was the Red Army's adoption of the strategy of destruction, which posited the defeat of the enemy's forces by the overwhelming application of military power, in which all other considerations are secondary. Given the hierarchical nature of Soviet military art and operational art's subordination to strategy, the same political-military demands which shaped the strategic thought of the period had predictable consequences for the conduct of operations. Thus it was no accident that the desire for a decisive outcome by the most violent and direct means possible came to dominate the field of operations as well.

It should not be assumed, however, that the notion of destructive operations originated with the Soviets or that it was exclusively the product of the regime's ideological predilections. In fact, the quest for the enemy's destruction in battle has been a part of the modern Russian military tradition since Peter the Great. Thus while many Western armies during the 18th century preferred to maneuver for an advantageous position rather than fight a battle, the Russian army showed a marked inclination to seek a battlefield decision, as at Poltava in 1709, and Kunersdorf in 1759. The same was true during the Napoleonic Wars in such battles as Eylau (1807) and Borodino in 1812. And while neither encounter yielded a decisive result, they were amongst the bloodiest battles of the age and testify to a desire to destroy the enemy at almost any cost. This

tradition remained strong among the army's healthier elements, in spite of the Russians' languid efforts in Manchuria and World War I, the conduct of which reflected a deep-set systemic decay as much as the incompetence of individual commanders.

The tradition was revived with a vengeance by the successor Red Army, whose more politically-minded leaders favored the swift and decisive methods which had figured so prominently in the Civil War. Among these was Frunze, then chief of the RKKA Staff, whose views were reflected in an operational manual issued under his aegis in 1924. In fact, the manual begins with the declaration that 'The task of each operation and battle is the destruction of the enemy's armed force', which is to be achieved by 'daring and decisive actions' employing wide-ranging maneuver.⁶⁰ These sentiments were echoed in another staff document, Future War, which appeared four years later. Here, the authors stated that 'operations must be waged with the greatest possible energy, to destroy the enemy', in order to exhaust him and create the conditions for a civil war in the enemy rear.⁶¹

These views found strong support among an influential group of young theorists who were just beginning their academic careers. Chief among these was Tukhachevskii, whose views on the strategy of destruction are already known, and whose approach to operations was no less aggressive. In his 1924 pamphlet, Problems of the High Command, Tukhachevskii unambiguously declared that 'Operations are conducted to destroy the enemy's armed force, which is necessary for achieving the war's aims'.⁶² V.A. Melikov reached the same conclusion in his history of recent military operations in France, Poland and Turkey. The author fully endorsed the idea of the 'destructive battle', which has as its goal the 'complete rout of the enemy army',

⁶⁰ M.V. Frunze, Vysshee Komandovanie. Ofitsial'noe Rukovodstvo dlia Komanduiushchikh i Polevykh Upravlenii Armii i Frontov [The High Command. An Official Manual for Commanders and the Field Organs of Armies and Fronts] (Moscow, 1924), p. 5.

⁶¹ TsGASA, fond 33988, opis' 2, delo 688, p. 98.

⁶² Tukhachevskii, I. 185.

according to the dictates of the strategy of destruction.⁶³ A.K. Kolenkovskii, a 1912 General Staff Academy graduate, wrote in 1929 that the 'offensive operation must become dominant' in the Red Army's operational art.⁶⁴

One of the few voices raised against this view was Svechin's, who courageously sought to resist the monolithic tide of offensivism in operational art, just as he had in the strategic debate. As always, his reasons were subtle and reflected his reaction to the crude theories of the red commanders, as well as strictly military considerations. He was particularly appalled at his opponents' single-minded search for a decision, which he felt limited the commander's freedom of choice in reacting to circumstances. Svechin roundly criticised the offensive operation conducted according to the strategy of destruction, which, he maintained, threatens to become an end in itself. He recommended instead waging operations with limited aims, which would ultimately bring about victory through the gradual accumulation of military and other advantages.⁶⁵ These views were later denounced by Triandafillov as 'operational opportunism' and evidence of the author's 'decadent attitudes'.⁶⁶ Such charges were not only an unfair characterization of Svechin's views, they also amply illustrate the increasingly intolerant tone which came to color Soviet military writings towards the end of the decade.

However, Svechin was fighting a hopeless rearguard action, as the issue had already been decided in favor of the offensive party, which is hardly surprising, given the prevailing political climate. This took place at the same All-Union Congress of the Military-Scientific Society which had approved Tukhachevskii's destructive strategy. Here the assembled delegates wholeheartedly endorsed the

⁶³ Melikov, Marna, p. 96.

⁶⁴ A.K. Kolenkovskii, O Nastupatel'noi Operatsii Armii, Vkhodiashchei v Sostav Fronta [On the Offensive Operation of an Army as Part of a Front] (Moscow, 1929), p. 11.

⁶⁵ Svechin, Strategiia, pp. 177, 180-81.

⁶⁶ Triandafillov, Kharakter, p. 161.

views of Tukhachevskii, Triandafillov and others and set the Red Army firmly on the path of offensive operations. Henceforth, the army's theorists would focus almost exclusively on the planning and conduct of the offensive, generally at the army level, while defensive operations remained little more than an afterthought in all but a very few works. The one-sided development of operational theory, as in the strategic sphere, while understandable, ultimately led to a serious neglect of defensive preparations which would cost the army dearly in 1941.

These and other of the decade's important operational questions were thrashed out within the RKKA General Staff Academy, which was the lineal descendant of the imperial staff academy, which had gone out of existence in 1918. The institution was renamed the RKKA Military Academy in 1921, and became the Frunze Military Academy in 1925, in honor of the recently-deceased war commissar. During these years the academy was headed by the former officers A.E. Snesev (1919-21), Tukhachevskii (1921-22), A.I. Gekker (1922), P.P. Lebedev (1922-24), and R.P. Eideman (1925-32). Frunze, the only non-professional, headed the academy briefly in 1924-25. Of this group, Snesev, Gekker and Lebedev were graduates of the old General Staff Academy.

The tsarist army's influence was just as strong among the faculty, which included such representatives of the old regime as Svechin, Verkhovskii and V.F. Novitskii, among others. Indeed, so heavily was the old professorate represented that some complained that the academy was in danger of becoming merely a red imitation of its imperial predecessor.⁶⁷

The academy, as the army's premier military-educational establishment, did not escape the bitter political struggles which racked the party and the armed forces throughout most of the decade. Here, as in other areas, the Stalinist faction, gained the upper hand, as successive groups of 'Trotskyites', 'left' and 'right deviationists'

⁶⁷ E. Shilovskii, 'Evoliutsiia Akademicheskoi Podgotovki' [The Evolution of Academic Instruction], *V&R* (1928), no. 11, p. 24.

were defeated and expelled.⁶⁸ In spite of these interruptions, the academy was nevertheless able to make a significant contribution to the development of a Soviet theory of operations.

Easily the most important of these achievements was the creation of a separate theory of operational art. As we have seen, the development of operational thought during the late imperial period was hobbled by a chronic reluctance to make a clear distinction between the province of operations and the older disciplines of strategy and tactics. More often than not, operations were viewed as an adjunct of strategy and were not recognized as occupying a theoretically independent niche. This terminological confusion continued into the early post-Civil War years, during which time the field of operations was variously referred to as the 'operational direction of troops', the 'tactics of mass armies', 'operational affairs', the 'tactics of the theatre of military activities', and 'strategic art in the operation', among others.⁶⁹ One Soviet historian has claimed that the term 'operational art' did not appear in the military literature until 1922, although he unfortunately fails to cite the source for this claim.⁷⁰ Another participant in these events gives the despised Svechin credit for coining the term during the 1923-24 academic year.⁷¹

This remark may refer to a lecture which Svechin gave in late 1924, entitled 'The Integral Understanding of Military Art', which, due to its importance, deserves to be quoted at some length. Svechin, during his address, declared that

... strategy and tactics are separated by an intermediate member--operational art; we think that retaining the old division of military art into strategy and tactics at the

⁶⁸ L. Papirmeister, 'Partorganizatsiia Voennoi Akademii za 10 Let' [The Military Academy's Party Organization After 10 Years], *V&R* (1928), no. 11, pp. 35, 46-47; Voronov, p. 61; Barmine, pp. 165-66.

⁶⁹ Danilov and Kravchenko, p. 38.

⁷⁰ Semenov, p. 112.

⁷¹ Varfolomeev, 'Strategiia', p. 84.

present time is absurd, because ... the general engagement, which once served as the basis for this division, has disappeared. We believe that each of the disciplines, into which military art is divided, must embrace a field having a certain internal integrity For tactics, such a field is the modern reality of the battlefield Operational art organizes the separate tactical activities into the operation, proceeding from the criterion of the operation as a whole. Finally, the tasks of grouping operations for achieving the war's political aim falls on strategy⁷²

Svechin's formula was soon adopted within the Red Army, in spite of the deep-set hostility which many commanders felt towards his views.⁷³ One of Svechin's most erudite supporters on this score was an academic colleague, N.E. Varfolomeev, a former tsarist captain and graduate of the final 1918 class of the old staff academy. In an important 1928 article entitled 'Strategy in an Academic Setting', Varfolomeev stated that due to the appearance of large armies and the spatial growth of the former battlefield,

The study of the operation has gone beyond the framework of tactics, the lot of which was the study of a single battle, but not of a group of them. The modern operation, in grouping battles, is a complex act; meaning the totality of maneuvers and battles in a given sector of the theatre of military activities, directed at achieving the overall, final goal in a given period of a campaign. The conduct of operations is beyond the capacity of tactics. It has become the lot of operational art. Thus the former two-part formula of 'tactics-strategy' is now becoming a three-part one--

tactics
combat

operational art
operation

strategy
war⁷⁴

By the end of the decade the need for a separate and independent sphere of operational art had been fully accepted within the army. Something approaching official recognition of this term appeared in a 1928 article in the Great Soviet Encyclopedia. The

⁷² A.A. Svechin, 'Integral'noe Ponimanie Voennogo Iskusstva' [The Integral Understanding of Military Art], Krasnye Zori [Red Dawns] (1924), no. 11(22), p. 23.

⁷³ Svechin's prickly relations with other faculty members and students are detailed in M.I. Kazakov, Nad Kartoi Bylykh Srazhenii [Over the Map of Past Battles] (Moscow, 1971), pp. 24, 38; Sandalov, pp. 8-9, 12-13.

⁷⁴ Varfolomeev, 'Strategiia', p. 83.

article, written by Svechin, and edited by Voroshilov and Tukhachevskii, proclaimed operational art an independent component of military art.⁷⁵ The fact that the leading representatives of the Red Army's major factions--Voroshilov (the party), Tukhachevskii (the young commanders), and Svechin (the older generation) were able to agree on this point is testimony to the degree to which it had become part of the army's intellectual baggage.

The army's changing view of operations was reflected in the academy's program of instruction. In the early years, studies were broken up into so-called 'cycles', of which the most important were strategy, tactics and military history.⁷⁶ What later became known as operational art was initially taught as part of the strategic cycle, although the study of operations during this period tended to overshadow the cycle's actual designation and hearkened back to the pre-revolutionary past, when even a corps was considered a unit of strategic significance.⁷⁷ This terminological dissonance led to a situation in which so-called 'higher strategy' (the study of war as a whole) remained tied to 'lower strategy' (operations), which, in turn, became entangled with 'higher tactics'.⁷⁸ The resulting confusion can be directly traced to Leer's formula of more than 30 years before and indicated how much still needed to be done in establishing operational art as a separate discipline.

The situation was clarified somewhat in 1924, with the division of the strategic cycle into two separate departments: 1) the study of war; and 2) the conduct of operations (*vedenie operatsii*); headed, respectively, by Tukhachevskii and Triandafillov. One participant in these events later noted that with the department's establishment, 'operational art became a part of the academy' scientific-educational practice, both in the capacity of a definite scientific concept, and

⁷⁵ Shmidt, XII. 218.

⁷⁶ Shilovskii, 'Evoliutsiia', p. 18.

⁷⁷ Neznamov, p. 194.

⁷⁸ Varfolomeev, 'Strategiia', pp. 81-83.

in the capacity of an educational discipline'.⁷⁹ The study of operational art was further enhanced by the expansion of the academy's program in 1925 from two to three years. While the first two years were chiefly devoted to tactical problems, the third year was given over to the study of operational-strategic questions; in particular the conduct of operations at the army and front level.⁸⁰ However, the delineation of the various disciplines remained imprecise, and this problem was not satisfactorily resolved until the 1930s.

During these years the staff and graduates of the academy produced a number of works which greatly contributed to the Red Army's understanding of operations. Among these were an important joint effort by Tukhachevskii, Varfolomeev and Shilovskii, entitled The Army Operation. The Work of the Command and Field Directorate, in 1926. Others included Svechin's Strategy (1923, 1927), Triandafillov's The Character of Operations of Modern Armies (1929), N.Ia. Kapustin's Operational Art in a Positional War (1927), N.N. Movchin's Consecutive Operations According to the Experience of the Marne and the Vistula (1928), and A.K. Kolenkovskii's On the Offensive Operation of an Army as Part of a Front (1929).

The academic developments of the 1920s represent the logical culmination of operational art's long struggle for theoretical independence. In retrospect, the most notable feature of this decades-long journey is not the length of time required, but that the final product so closely resembled what had gone before. From Leer's 'tactics of the theatre of military activities', to 'operatics', and Neznamov's views on the place of operations in military art, it was but a short step to a formula which has remained essentially unchanged after more than 60 years. The fact that the prime movers in this evolution's final steps were former tsarist officers, by virtue of their superior training and expertise, should come as no surprise,

⁷⁹ Ibid, p. 84.

⁸⁰ Shilovskii, 'Evoliutsiia', p. 19; P.A. Kurochkin, ed., Obshchevoiskovaia Armiia v Nastuplenii [The Combined-Arms Army in the Offensive] (Moscow, 1966), p. 9.

and illustrate once again the profound influence which the representatives of the imperial military tradition still wielded in certain areas of the Red Army.

One of the most interesting and productive areas of research during these years involved devising a method of conducting operations at the army level. As the 'smallest operational unit', an army was viewed as responsible for 'grouping ... a series of combats', while its own activities constituted one or more of the intermediate phases of a larger front operation.⁸¹ In practical terms, the army organises the numerous tactical actions of its subordinate divisions and corps, while at the same time it fulfills a similar function vis a vis the front, which pursues its own strategic mission. Such statements also highlight the central position occupied by the army operation and, by extension, operational art, in the theoretical order of things. This formula was aptly summed up by Varfolomeev in 1928, who wrote that 'combat is the means of the operation, tactics--the material of operational art; the operation--the means of strategy, operational art the material of strategy'.⁸²

One author, N.N. Movchin, went to some lengths to explain the nature of the army operation, in particular as it differed from the front operation, which is at once both larger, in terms of the men and materiel involved, and more complicated as to the multiplicity of goals it can pursue. However, Movchin insisted that the army operation was more than a mere subset of the front operation, but a combat episode possessing independent elements, in spite of its subordinate status. He defined the army, or 'simple' operation as one which, due to its limited resources, is capable of pursuing only one objective at a time; possesses sufficient resources for achieving this goal; has a command organisation responsible for controlling the army's activities and establishing intermediate objectives, and; which

⁸¹ Kapustin, p. 20; Kolenkovskii, pp. 13, 15.

⁸² Varfolomeev, 'Strategiia', p. 84.

encompasses all activities during the operation.⁸³

Movchin's use of the term 'simple' (*prostaiia*) operation to describe the activities of an army pursuing a single objective is particularly interesting, given its historical antecedents. Mikhnevich was writing about the 'simple operational line' as early as 1911, if not before, to describe an operation in which the army pursues 'a single object of activities' along the front. He distinguished this from what he called the 'complex operational line', whereby an army or group of armies pursues more than one objective simultaneously.⁸⁴ Mikhnevich's notion of 'operational lines' was never adopted by the Soviets, but his division of operations into 'simple' (army) and 'complex' (front) types was briefly employed by the Red Army to highlight the differences between these forms.

Soviet military theory during this period recognised three kinds of army operations, the approximate outline of which had been identified by Neznamov as early as 1911. The first and most intensively studied was the offensive against a defender awaiting attack. This form was considered the most likely to occur and reflected the experience of the Great War, in which positional forms had been dominant. Such a situation would require a breakthrough operation to restore maneuver, although the Soviets assumed that even a relatively stable front in the East would be more vulnerable to a penetration than had been the case during the 1914-18 trench stalemate in France. The second form was the meeting operation, during which both sides launched attacks. This situation, it was believed, would most likely arise at the beginning of hostilities, or in the presence of open flanks along an otherwise stable front. The third and final form was the much-ignored defensive operation, which was viewed as a forced measure, to be adopted only under duress.

The outstanding theorist of the army operation during the 1920s was Vladimir Kiriakovich Triandafillov, who for all of his immense

⁸³ Movchin, *Posledovatel'nye*, pp. 19-20.

⁸⁴ Mikhnevich, *Strategiia*, I. 178, 180.

importance to the development of Soviet operational art is a figure almost unknown in the West. Triandafillov was born in 1894 to a family of Greek descent near Kars, in what is now northeastern Turkey. He was drafted, like others of his generation, into the Russian army upon the outbreak of World War I and eventually rose to the rank of captain. Triandafillov, as did many other specialists and wartime officers, joined the Red Army in 1918 and held various command and staff positions on the Eastern, Southern and Southwestern fronts in the Civil War. He enrolled in the RKKA General Staff Academy in 1919, although combat postings and other assignments delayed his graduation until 1923. In 1924 Triandafillov was appointed chief of a section in the RKKA Staff's operational directorate, and head of the directorate a year later, while also serving as head of the staff academy's operational department. In 1928 he became deputy Chief of the RKKA Staff, and returned to that position in 1930, following a year's service as commander of a rifle corps.⁸⁵ Triandafillov died in an airplane crash near Moscow on 12 July 1931; an accident which also claimed the life of the Red Army's leading armoured theoretician, K.B. Kalinovskii. As evidence of the great esteem in which he was held in the army, Triandafillov's ashes were interred in the Kremlin wall alongside other Soviet notables.

Triandafillov, as a young wartime officer, naturally gravitated to the camp of the strategic and operational 'destructionists' and enthusiastically supported Tukhachevskii and other like-minded commanders in their bitter polemics with the older military specialists. However, Triandafillov was no single-minded bigot, but a talented and innovative theorist and author of several articles on

⁸⁵ A. Golubev, 'Vydaiushchiisia Sovetskii Voennyi Teoretik' [An Outstanding Soviet Military Theoretician], V-IZh (1968), pp. 107-14. One source states that Triandafillov also served briefly as Chief of Staff in 1931. See the article by M.V. Zakharov, in A.M. Prokhorov, ed., Bol'shaia Sovetskaia Entsiklopediia [The Great Soviet Encyclopedia], 3rd ed. (Moscow, 1969-78), VI. 224. Another claims that he was acting Chief of Staff in 1929. See Kadishev, Voprosy, p. 552. However, no other work on the General Staff or Triandafillov makes either of these claims. See the relevant articles in Grechko, II. 512, and VIII. 107. Nor does Zakharov repeat his claim in his posthumous history of the General Staff. See M.V. Zakharov, General'nyi Shtab v Predvoennye Gody [The General Staff in the Prewar Years] (Moscow, 1989), p. 311.

military history. His intellectual partnership with Tukhachevskii--what one observer called 'a happy combination of two minds'--was particularly fruitful, and the two were able to implement a number of changes in the army, despite Stalin's objections.⁸⁶

Triandafillov's writings reveal a convinced exponent of the offensive operation, conducted to destroy or capture the enemy force in the swiftest and most decisive manner possible.⁸⁷ However, unlike many of his contemporaries, Triandafillov's enthusiasm was tempered by a sober calculation of those factors which had greatly increased the difficulty of realising such an operation. Among these were the defence's vastly-augmented powers of resistance, due to both qualitative and quantitative developments in weapons since the war. Triandafillov calculated that the density of machine guns per kilometer along a future Eastern Front would exceed the 1914 figure by some six to eight times, while similar improvements were taking place in the armies' artillery, air and transportation arms.⁸⁸

Another factor is the great spatial depth of modern defensive arrangements, which enable the defender to withstand serious offensive shocks without collapsing and to maneuver his reserves to meet any threat. Triandafillov calculated the depth of the enemy's tactical defence at between eight and ten kilometers, an area which embraced the front line to the limit of his corps reserves. He defined the operational defence as encompassing the defender's army reserves, which generally extend to a depth of 25-35 kilometers, although in certain cases this zone may reach back as far as 80-100 kilometers, given the presence of a sufficiently large truck park. He classified any deeper reserves as 'strategic', which would be

⁸⁶ G. Isserson, 'Zapiski Sovremennika o M.N. Tukhachevskom' [A Contemporary's Notes on M.N. Tukhachevskii], V-IZh (1963), no. 4, p. 69; N.I. Koritskii, S.M. Mel'nik-Tukhachevskaiia, B.N. Chistov, comps., Marshal Tukhachevskii. Vospominaniia Druzei i Soratnikov [Marshal Tukhachevskii. Memories of Friends and Comrades-in-Arms] (Moscow, 1965), p. 133.

⁸⁷ V.K. Triandafillov, Razmakh Operatsii Sovremennykh Armii [The Operational Scope of Modern Armies] (Moscow, 1926), p. 3.

⁸⁸ Triandafillov, Kharakter, p. 75.

brought up to the front by rail.⁸⁹

Triandafillov's chosen instrument for overcoming these formidable obstacles was the 'shock army' (*udarnaia armiia*), a combined-arms force designed not only to break through the enemy's tactical defence, but to continue the offensive through his operational depth and beyond. The shock army would ideally contain from 12 to 18 rifle divisions, organised into four or five corps, yielding a structure similar in size to a number of pre-revolutionary calculations for an army of 150,000-200,000 men.⁹⁰ However, the similarity here was in numbers only, for the shock army was vastly superior to its primitive prewar counterpart in terms of both its striking power and mobility. Triandafillov wanted to increase the former by reinforcing it with as many as 16-20 artillery regiments for suppressing the enemy's machine guns and artillery fire during the critical breakthrough phase, while imparting additional mobility and depth to the blow through the addition of eight to 12 tank battalions. He further proposed strengthening the army through the addition of two or three aviation brigades of light and heavy bombers, for strikes deep in the enemy rear, while four or five fighter squadrons would provide cover for the ground attack.⁹¹

Triandafillov modelled his shock army after the powerful German right-flank armies which invaded Belgium and France in 1914, and a similar grouping organised by the Soviet Western Front in 1920. The shock army, as these examples indicate, was to assume the leading role in frontal operations along the most important strategic axes, although under conditions and in a form which differed radically from its predecessors.⁹² With the prospect of some form of positional warfare seen as increasingly likely, the shock army had to be configured to the need for disrupting the enemy defence and maneuvering in

⁸⁹ *Ibid*, p. 116.

⁹⁰ *Ibid*, p. 97-98; Neznamov, p. 194; Leer, *Strategiia*, 4th ed., II. 13.

⁹¹ Triandafillov, *Kharakter*, pp. 98-99.

⁹² *Ibid*, p. 96.

depth. This requirement, in turn, made it necessary to increase the proportion of specialised arms within the army. The idea of the shock army was quickly adopted by other Soviet theorists and its composition was continuously debated throughout the 1930s. However, for a variety of reasons, the shock army, as originally conceived, never lived up to its initial promise, although a number of such armies were eventually created during World War II.

Triandafillov rejected the idea of mounting an offensive along a narrow front, which had been the practice in both East and West during the greater part of World War I; the major exception being Brusilov's 1916 effort. He argued that an attack along a narrow front can destroy, at most, only an insignificant portion of the defender's front-line troops and reserves, leaving the remainder free to form a new defensive front or launch a counterattack. Triandafillov, as proof, cited the Germans' great March 1918 offensive, which had unfolded along an 80-kilometer front, or little more than 11% of the entire 730-kilometer Western Front. As a result, the German offensive initially affected only 29 Allied infantry divisions, leaving the remaining 146 divisions untouched and able to concentrate against the threat and thus halt the German advance.⁹³ Triandafillov concluded that 'A breakthrough operation may count on success ... only if it ties down a significant portion of the enemy's forces' occupying a given front, which he calculated at between one-third and one-half of the defender's total forces.⁹⁴ By this, the author evidently had in mind Tukhachevskii's opening offensive against the Poles in July 1920, which embraced the entire enemy army group north of the Pripiat' Marshes and approximately half of the total Polish forces at the front.

Triandafillov's views were supported by a broad spectrum of the Red Army's leading theorists of varying backgrounds. Among these was the young G.S. Isserson, who was just beginning his academic career

⁹³ Ibid, p. 120.

⁹⁴ Ibid, p. 121.

and who was destined to become one of the most influential authors on operational art during the 1930s. Isserson, also chose as his point of reference the March 1918 offensive and, like Triandafillov, reproached the German high command for launching the offensive with less than a third of its forces along a strategically-insufficient share of the front. He concluded that in order that the offensive go beyond mere tactical success, 'it is necessary to keep the enemy's reserves in place along the entire front', so as to prevent the defender from concentrating his unengaged forces against the breakthrough area.⁹⁵ Others included Kamenev and Tukhachevskii, the latter of whom declared in 1924 that 'The wider the breakthrough front, the greater the destruction inflicted upon the enemy'.⁹⁶ Triandafillov defined this necessary frontage at no less than 150-200 kilometers. He calculated that an attack of this scope would immediately engage anywhere from 15-20 enemy divisions, and would require as many more to seal the breach. He further concluded that such a large diversion of troops to the threatened sector would likely be beyond the capabilities of an army numbering only 60-65 divisions, by which he clearly meant Poland.⁹⁷

That the Soviets came to prefer offensive operations along a broad front is hardly surprising, given the various political and military factors that entered into their calculations. Among these was the assumption that a future war might easily involve all the Soviet Union's western neighbors, creating a 3,000-kilometer front from the Barents to the Black seas. The absurdity of trying to achieve a decisive result along a narrow front, given the distances involved, was obvious, particularly given the high command's belief that an offensive along a 300-kilometer front might remove some of the smaller members (Estonia and Latvia) of the expected coalition at

⁹⁵ G. Isserson, Martovskoe Nastuplenie Germantsev v Pikardii v 1918 Godu [The Germans' March Offensive in Picardy in 1918] (Moscow, 1926), p. 47.

⁹⁶ Kamenev, p. 71; Tukhachevskii, I. 189.

⁹⁷ Triandafillov, Kharakter, p. 122.

a single stroke.⁹⁸ Another was the proven effectiveness of the offensive launched on a broad front, particularly in the East, where the vast distances and the resulting lower troop densities made a war of maneuver more likely. This had been the case in 1916, when even the poorly-supplied Southwestern Front defeated the Austro-Hungarians and came close to a stunning strategic result. The situation was somewhat different in the cramped conditions of France, but the Allies did ultimately adopt the strategy of launching continuous offensives along broad sectors of the front during their final summer-autumn drive in 1918.

The notion of the broad-front offensive quickly became official army policy and its utility was never seriously questioned by any of the major theorists. During World War II these ideas were put into practice, and the conduct of enormous offensive operations, involving one or more fronts, quickly became a standard feature of Soviet operational-strategic practice.

Triandafillov's solution for overcoming the enemy's tactical defence and carrying the offensive into his operational and strategic depth was twofold. The first step involved concentrating large numbers of men and materiel at the decisive point, in order to increase the initial weight of the attack and overwhelm the defence at the very outset. He calculated that even a reinforced shock army can mount an effective attack along a front of no more than 25-30 kilometers and recommended that the divisions carrying out this attack be assigned sectors of two to three kilometers in breadth, for a first-echelon strength of eight divisions along the projected breakthrough zone.⁹⁹ Artillery densities for the main attack would range from 50 guns per kilometer for purposes of infantry support, to 75 guns per kilometer in those instances where the artillery has a

⁹⁸ M.N. Tukhachevskii, N.E. Varfolomeev and E.A. Shilovskii, Armeiskaia Operatsiia. Rabota Komandovaniia i Polevogo Upravleniia [The Army Operation. The Work of the Command and Field Directorate] (Moscow and Leningrad, 1926), p. 24.

⁹⁹ Triandafillov, Kharakter, pp. 121, 110.

counter-battery mission as well. In certain cases, the artillery may be partially replaced by tanks, which may be massed to a density of 20-30 machines per kilometer to support the infantry attack against a built-up defence. When extended operations are called for, this figure may rise to as many as 60 tanks per kilometer.¹⁰⁰

The principle of the maximum concentration of force at a single point, in the context of an extended front and an overall scarcity of resources, was as old as the Red Army itself. This had been amply demonstrated on a number of occasions, as during the counteroffensive by Frunze's Southern Group and Egorov's 'shock group' near Orel in 1919, as well as Tukhachevskii's preparations for his summer 1920 offensive. This principle underwent further theoretical elaboration following the Civil War. Both Tukhachevskii and Kolenkovskii, for example, believed that army commanders should strive to achieve a five or sixfold superiority over the defender to ensure success, and established a threefold superiority as a minimal condition for a successful attack against an entrenched opponent.¹⁰¹ Kapustin, in his work on army operations in a positional war, recommended an even greater concentration of force: 20-25 divisions attacking along a 15-20 kilometer breakthrough front, supported by approximately 50 guns per kilometer.¹⁰² Kapustin, however, was writing two years before Triandafillov, and relying chiefly on the experience of the Great War, while the latter was already looking forward to a more technically-advanced army which did not have to rely so heavily on large masses of infantry.

Triandafillov also recommended launching a number of secondary attacks to deceive the defender as to the place and direction of the main blow, and to pin down his front-line forces and reserves. These auxiliary attacks would involve two or three divisions, attacking

¹⁰⁰ Ibid, pp. 82-83.

¹⁰¹ Tukhachevskii, Varfolomeev and Shilovskii, pp. 53-56; Kolenkovskii, O Nastupatel'noi, p. 27.

¹⁰² Kapustin, pp. 79, 85.

along a 20-25 kilometer front. This would yield an offensive frontage of some 45-50 kilometers for the shock army as a whole, with a first-echelon strength of 10-11 divisions. Due to the main attack's demands, however, those forces making secondary efforts would have to rely on their organic means, although Triandafillov allowed that in exceptional cases they might be reinforced with units from corps artillery.¹⁰³ Kolenkovskii, in a similar fashion, divided his army into 'shock', 'holding' and 'demonstration' groups. The shock group, according to this scheme, would make the main attack with no less than two-thirds of the army's forces. It would be supported by the other two groups along the attack front's secondary sectors according to their designation.¹⁰⁴

The second ingredient of operational success, following the disruption of the enemy's tactical defence, is to sustain the force of the initial blow into the defender's operational depth and beyond. Triandafillov warned that this would be no easy task under modern conditions, and that the first-echelon divisions could expect to suffer 12-20% casualties in a period of five to six days.¹⁰⁵ He suggested that one way to compensate for the effects of these losses would be to arrange the army's main attack into second or third echelons, containing one-third to one-half of the first echelon's strength.¹⁰⁶ This backup force would enable the corps commanders to maintain the necessary attack densities along their lengthening fronts and sustain the offensive's momentum by continuously feeding the advance.

This arrangement was a radical departure from Civil War practice, when even an army attacking along the main axis was lucky to have as much as a division in reserve, much less supporting echelons. Triandafillov's recommendations were further developed during the

¹⁰³ Triandafillov, Kharakter, p. 110.

¹⁰⁴ Kolenkovskii, O Nastupatel'noi, pp. 28-29.

¹⁰⁵ Triandafillov, Kharakter, p. 133.

¹⁰⁶ Ibid, p. 97.

succeeding interwar years and received an added, technical dimension with the advent of mechanised and armoured forces. This development reached its apogee during the latter half of World War II when, in several of the larger front and multi-front operations, entire armies came to constitute the follow-on echelons.

The theorists of the 1920s dealt only briefly with the actual minutiae of the operation, so its unfolding can only be sketchily reconstructed through their writings. For Triandafillov, the key to success lay in quickly overcoming the enemy's tactical defence zone and defeating in succession his operational reserves as they arrive to seal the breakthrough. This presupposed the enemy's suppression throughout his entire tactical-operational defence and is best illustrated by the activities of the shock army's air arm during the initial operation. Bomber aviation would begin the battle with strikes against the defender's front-line troops and immediate rear targets, such as troop concentrations and artillery positions, while fighter aviation would work to gain air superiority over the battlefield and secure the main attack's deployment and penetration of the tactical defence. As the offensive moved into the defender's operational zone, bomber aviation would gradually shift its efforts to disrupting the arrival of the enemy's reserves by concentrating on such rear-area targets as troop columns and rail junctions, while fighter aviation would protect those units advancing along the most important axes. The depth of air combat activity in such cases might reach 50-75 kilometers and more.¹⁰⁷

Triandafillov calculated the daily rate of advance during the immediate breakthrough phase at five to six kilometers, which meant it would take two days to pierce the enemy's tactical defence, while another three to four days would be necessary to clear the area of the defender's army reserves.¹⁰⁸ Kapustin recommended creating a special 'breakthrough group' (*proryvaiushchaia gruppa*) of first-

¹⁰⁷ *Ibid*, p. 113; Kolenkovskii, *O Nastupatel'noi*, p. 61.

¹⁰⁸ Triandafillov, *Kharakter*, p. 116.

echelon divisions to carry out the difficult task of overcoming the enemy's tactical defensive zone. He also anticipated Triandafillov in his insistence that this group be reinforced with extra artillery, tanks and chemical weapons for the task. The shock army commander, once the defender's tactical position had been breached, would then, according to this plan, commit his 'maneuver group' (*manevrennaia grupp*a) to develop the attack against the enemy's flanks and rear. The maneuver group would consist of infantry divisions and large numbers of cavalry, and its mission was quite distinct from that of the second and third echelons.¹⁰⁹ Whereas the latter were charged with reinforcing the advance, the maneuver group would spearhead the advance, raiding the defender's communications and disrupting the arrival of his reserves.

Triandafillov, for his part, did not assign this group a particular organisational status within the army, and he envisaged a formation composed primarily of so-called 'strategic cavalry', which was a more up-to-date version of Budennyi's First Cavalry Army. This group would be reinforced with mobile artillery, light tanks and motorized machine-gun units. This formation would operate on the shock army's flank to depth of 75-100 kilometers, raiding and carrying out the 'tactical encirclement' of the defender's forces.¹¹⁰

The idea of a special mobile force for exploiting infantry success is as old as the cavalry itself. However, the advent of trench warfare in 1914-18 seemed to herald the end of the mounted arm's usefulness, even on the Eastern Front. The situation changed dramatically during the Civil War, where the cavalry was reborn under conditions which facilitated broad-ranging maneuver. As the Red Army became more skilled in their employment, large cavalry formations quickly became a decisive means for exploiting the infantry's success at the front level, most notably during the First Cavalry Army's breakout from the Kakhovka bridgehead in 1920. In this sense, the

¹⁰⁹ Kapustin, pp. 18, 20, 213.

¹¹⁰ Triandafillov, *Kharakter*, p. 166.

idea of a separate maneuver group in an army operation did not represent much of an advance over previous practice. However, the advent of large-scale mechanisation during the 1930s created the technical basis for the development of a much more powerful maneuver group, composed of motorized infantry, cavalry and tanks. These formations, whether known as the mobile group or the breakthrough development echelon, eventually became the cavalry-mechanised groups and tank armies of World War II, in which capacity they were often the decisive means for exploiting success during front offensive operations.

While tactics deals with zones, sectors and densities, the proper sphere of operational art is the axis of advance, making the form and direction of the blow a matter of prime importance to the army commander. Soviet operational art during these years recognized three basic forms of offensive maneuver. These had been identified by Neznamov as early as 1911, and consisted of 1) a movement to turn one of the enemy's flanks; 2) a movement to turn both flanks; and 3) a frontal attack resulting in a breakthrough.¹¹¹ The first two forms were more likely to be encountered in conditions of maneuver warfare, such as a meeting operation, in which the enemy's flanks would be open or lightly held, although frontal attacks were certainly not excluded. The latter case was much more likely to occur in a positional setting, in which case a successful breakthrough would almost always turn into single or double turning movement.

Some theorists favored the so-called 'ram' (*taran*) approach, which is the offensive operation aimed at turning the enemy flank along a single axis, and which could come about as the result of a meeting operation involving open flanks, or following the breakthrough of the enemy's tactical defence under positional conditions. This maneuver had been tried most recently by the Germans during their 1914 advance to the Marne, and by the Western Front during its ill-fated drive to the Vistula in 1920. Tukhachevskii, oddly enough,

¹¹¹ Neznamov, pp. 21-22; Kolenkovskii, *O Nastupatel'noi*, p. 24.

continued to speak favorably of this maneuver, in spite of his own disastrous experience before Warsaw. However, he was not completely blind to the maneuver's flaws, the most serious of which was that such a narrow approach quickly reveals its intentions to the enemy, thus giving him time to prepare a counterattack.¹¹² Kolenkovskii was even more guarded in his approach, although he allowed that a single turning movement might still be useful in certain cases. Among these were situations in which a single blow would enable the attacker to pin the outflanked enemy against a natural barrier or foreign border, resulting in his isolation and destruction.¹¹³

Triandafillov's rejection of the ram was more forceful, and he believed that such an expedient could rarely be effective, as the defender would be able to ward off such an obvious maneuver by counterattacking or withdrawing to a new position. In purely logistical terms, a major offensive along a single axis would also be more difficult to supply over a limited road and rail net than a more dispersed effort, in which supplies and reinforcements could be brought up along more than one avenue of advance. Thus Triandafillov, as had Kolenkovskii, saw the ram's usefulness limited to those exceptional cases where the presence of impassable natural obstacles or a neutral border would furnish the missing flank and allow a single blow to cut off the enemy.¹¹⁴

Triandafillov believed that the most decisive form of maneuver was a series of offensives 'along intersecting axes', in order to 'surround, capture and destroy' the defender in a pincer movement. He recommended, in order that the projected encirclement cut off not only those elements of the enemy's tactical defence still holding out at the front, but his army reserves as well, that the enveloping wings be heavily reinforced with mobile formations (cavalry and motorized troops) to carry the attack quickly to a depth of 35-50

¹¹² Tukhachevskii, I. 142.

¹¹³ Kolenkovskii, O Nastupatel'noi, p. 21.

¹¹⁴ Triandafillov, Kharakter, pp. 163-65.

kilometers. A movement of this scope implies the mounting of two major offensive operations along widely-separated areas of the front, and Triandafillov proposed an attack by two shock armies along an 80-kilometer front, in conjunction with an attack by another such army along a 40-50 kilometer sector along another part of the front.¹¹⁵

These and other recommendations had their roots in both pre-revolutionary theory and the Red Army's own experience in the Civil War. In the latter conflict, Soviet attempts at single or double turning movements usually failed due to a lack of troops and the army's low level of mobility, and there are no instances of a large haul of prisoners as a result. Despite these failures, however, the idea of cutting off and encircling the defender was never seriously questioned. Other theorists would develop this idea further in the next decade, and it would reach fruition in several of the Red Army's great encirclement battles of 1942-45.

Many of the recommendations put forward by the operational theorists of the 1920s applied equally to the army operation in a positional war as well as to the meeting operation. The latter, however, possessed a number of specific qualities which required further elaboration. The most important of these features was that the army would not be previously deployed, as in a positional situation, but would do so from the line of march, often with only a limited knowledge of the enemy's forces and deployment. Thus Triandafillov calculated that an army on the march would occupy a front 90-100 kilometers in breadth and 65-70 kilometers in depth within three to four days of the expected encounter, although this frontage was expected to contract to 50 kilometers by the eve of the battle.¹¹⁶

His recommendations concerning troop and artillery densities were similar to those he deemed necessary for success in a positional setting. According to this scenario, the army would launch its main attack along a 25-kilometer front, with eight divisions in the first

¹¹⁵ Ibid, pp. 123-24, 165.

¹¹⁶ Ibid, pp. 102, 104.

echelon, while another two or three divisions would carry out supporting attacks along a 20-25 kilometer front. The army commander, with no field fortifications of substance to deal with, might vary the density of his artillery along the main attack front from as low as 30 guns to as high as 60 guns per kilometer. These calculations were supported in the main by Kolenkovskii, who recommended attacking along a 25-30 kilometer front, with an artillery density of only 24 guns per kilometer along the main attack front.¹¹⁷

The attack was expected to conclude with a breakthrough of the enemy's front, followed by its subsequent exploitation in depth. Much the same applied to the turning movement directed against the enemy's open flank. Should either attack fail, it was likely that the front would stabilize, at least in the immediate area, perhaps resulting in a positional stalemate, as had been the case after the first great clashes of 1914.

It is not surprising, given the marked Soviet penchant for offensive operations, that Triandafillov devoted so little time to their defensive counterpart, and even these remarks were imbued with an aggressiveness which viewed the defensive as a temporary, forced measure preparatory to launching a counteroffensive. Triandafillov's recourse to the defensive was the direct result of his offensive preparations, and he philosophically accepted the inevitability of defensive measures along sections of a lengthy front on which one cannot be strong everywhere, particularly if sufficient forces are to be gathered for a decisive offensive along another sector.

The army's defence rests primarily on its organic reserves. Once the enemy has penetrated the army's tactical defence zone, the defender's ability to restore the situation rests with the speed with which he can bring these reserves to the threatened area, a factor which also determines the ultimate depth of the defender's possible withdrawal. Triandafillov hoped to limit the retreat in most cases to 30-40 kilometers and finally bring the offensive to a halt by

¹¹⁷ Ibid, pp. 110-11; Kolenkovskii, O Nastupatel'noi, pp. 64, 70.

directing the reserve forces' counterattacks against the attacker's lengthening flanks. The defender in the case of a particularly large breakthrough, may be forced to make use of his strategic reserves and carry out the lateral movement of other forces from the unaffected sectors of the front.¹¹⁸

The Character of Operations of Modern Operations was easily the single most important work on the subject of operations produced during the interwar period. The author's achievement is all the more remarkable in light of the Red Army's existing technical state at the end of the 1920s. At the time the army was still an overwhelmingly infantry force which derived whatever mobility it did possess from its large but outdated cavalry arm. However, great changes were in the offing, and it is to the author's credit that he was able to see beyond the army's current backward state to a time when it would be technically capable of realizing his ambitious plans. Triandafillov was able to go beyond previous historically-based studies and construct an 'operational calculus' for determining the methods and resources for operational success in a future war. The result was a veritable primer for plotting the breakthrough of the enemy's front and conducting operations in depth. In fact, so prescient were many of his ideas that they were easily grafted onto the more-mechanised Red Army of the 1930s. For this reason, Triandafillov was considered by a number of contemporaries to be the father of what later became known as the 'deep operation'.¹¹⁹ This theory, in turn, became the theoretical prototype for many of the Red Army's great wartime offensive operations.

D. The Theory of Consecutive Operations

As we have seen, Soviet military theory in the 1920s had expressed itself forcefully in favor of the decisive offensive

¹¹⁸ Triandafillov, Kharakter, pp. 130-31.

¹¹⁹ Vasilevskii, p. 78; Sandalov, p. 6.

operation, aimed at the destruction or capture of the enemy army in the quickest and most violent manner possible. However, the chief drawback to this approach was the fact that 'Modern armies possess colossal survivability', as Frunze observed in 1924, and that a final military decision involving such armies 'cannot be achieved by a single blow'.¹²⁰ The then-deputy war commissar, in this statement, was merely acknowledging one of the salient characteristics of modern armies since the American Civil War, during which time their amazing resilience to destruction in a single great battle first became apparent. Even following such battles as Second Manassas, Chancellorsville and Gettysburg, the defeated army escaped to fight another day, while as often as not, as at Shiloh and Stone's River, the two sides fought to the point of mutual exhaustion. The few exceptions to this trend occurred at Metz and Sedan in 1870, but their outcome owed far more to the French command's shortcomings than to its armies' fighting capabilities.

The problem had been raised in Russia as early as 1911 by the future military specialist Neznamov. He declared that the decisive 'general engagement', in which the outcome of a war is decided by a single battle, was a thing of the past. Oddly enough, Neznamov persisted in praising the single decisive battle as the 'Ideal of military art', although he admitted that such an event had occurred only once in recent history, at Jena in 1806, where Napoleon routed the main Prussian forces in a single day. He warned that in most cases any victory was likely to be incomplete, enabling the defeated army to withdraw intact, while its remnants would serve as the basis for a new line of resistance. In such cases, the victor might be as disorganised and exhausted as the loser, preventing him from quickly exploiting his success and causing the process to begin anew.¹²¹ Neznamov may have had in mind the Battle of Borodino, in 1812, in which Kutuzov was defeated, but managed to withdraw his army in the

¹²⁰ Frunze, Izbrannye, II. 133.

¹²¹ Neznamov, pp. 10-11.

face of the equally exhausted French and recovered to drive the enemy out of Russia. He was more likely to have recalled his own experiences in Manchuria, where the Russians suffered a tactical defeat at Liao-Yang and a near-disaster at Mukden, but were able to avoid final destruction. The Japanese, in each instance, were too bloodied to take advantage of their victories and finish the Russians off.

The First World War and the Soviet-Polish War provided ample confirmation of this trend on an even larger scale, in spite of the vastly different materiel circumstances in which they were waged. By far the most notable example of a modern nation's inability to end a war in a single climactic battle was the failure of the Germans' 1914 advance to the Marne River, which was conducted under the auspices of the strategy of destruction. In this case, the British and French were able to recover from their early reverses and throw the Germans back from Paris to the Aisne and nearly four years of trench deadlock. The Red Army attempted much the same feat in its headlong advance to the Vistula in 1920. However, the Soviets soon became the victims of their own success and arrived before Warsaw worn out and understrength, and the devastating Polish counteroffensive which followed threw them back hundreds of kilometers, where the war soon ended in mutual exhaustion.

These and other events provided considerable grist for the Red Army's intellectual mills following the Civil War. Among the many theorists who pondered the implications of this dilemma were a number of military specialists and non-professional commanders as well. Senior among these was Glavkom Kamenev, who may well have attended Neznamov's lectures at the imperial Staff Academy and who reached much the same conclusions ten years later. Kamenev wrote that in a modern war involving large armies, 'general engagements ... have lost their acute character' and are no longer capable of determining the outcome of a war at a single stroke.¹²² Tukhachevskii's knowledge of modern armies' resilience had been earned the hard way against the

¹²² Kamenev, p. 64.

supposedly defeated Poles in 1920. That sobering experience soon brought him around to his former commander-in-chief's views, and the difficulty or impossibility of deciding the outcome of a war in a single battle or operation was a theme to which he would return often during the decade.¹²³ Svechin, the *bete noire* of the red commanders, readily expressed his solidarity with this viewpoint, declaring that 'Only on very rare occasions' could a decision now be achieved in a single battle.¹²⁴

The conclusions regarding the demise of the decisive general engagement were supported in a number of historical studies by other, less well-known authors, who also shared the idea that the modern state had become impervious to a single 'knock-out' blow. Among these was Movchin, who wrote in 1928 that 'in modern war it is impossible to destroy the enemy's entire army with a single blow, no matter how powerful it is'.¹²⁵ In a similar vein, other theorists were struck by the enhanced ability of modern armies to sustain even serious defeats and recover relatively quickly by falling back on their sources of supply, as had been the case in both World War I and the Russian Civil War.¹²⁶

Probably the most comprehensive summation of the Red Army's views on the question was delivered by Triandafillov at the above-mentioned congress of the Military-Scientific Society. In a lengthy article based upon his report to the congress, he declared that

... the experience of recent wars showed that it is impossible to achieve the enemy's major defeat by a single operation. A single operation engages only part ... of the enemy's entire forces. A single operation, in conditions of modern war, may

¹²³ Tukhachevskii, Varfolomeev and Shilovskii, p. 79; Tukhachevskii, I. 107, 141-42, 261, II. 23.

¹²⁴ Svechin, *Strategiia*, p. 14.

¹²⁵ Movchin, *Posledovatel'nye*, p. 5.

¹²⁶ V.F. Novitskii, *Mirovaia Voina, 1914-1918 g.g. Kampaniia 1914 Goda v Bel'gii i Frantsii* [The World War, 1914-1918. The 1914 Campaign in Belgium and France] (Moscow, 1926-28), II. 384-85; A. Vol'pe, 'Presledovanie v Grazhdanskoi Voine' [Pursuit in the Civil War]. In Bubnov, Kamenev and Eideman, II. 234.

result in the rout or capture of only a certain part of the foe's armed forces. 'Cannae'--as they were depicted in the prewar literature,--cannot be realized through a single operation.¹²⁷

Thus during the 1920s the Red Army faced the critical problem of devising a successful offensive method under conditions in which many of the criteria which formerly constituted victory were no longer attainable. The impossibility of destroying the enemy's armies in a single battle or operation inevitably gave rise to the notion of achieving the same goal over an extended period, which would require several operations. Such a conclusion dovetailed with the growing realization in Soviet strategic circles that any future conflict was likely to be a prolonged affair, and that even a war with the USSR's western neighbors 'cannot be concluded within a few months', as the RKKA Staff's Future War cautioned in 1928.¹²⁸ The combination of these factors was to launch many of the army's leading thinkers on a series of investigations which ultimately produced one of the Red Army's most interesting and least known contributions to military thought--the theory of consecutive operations.

Not surprisingly, this theory had its roots in the brief period of intellectual vigor which characterized parts of the Russian army from 1905 to 1914. Neznamov, as we have seen, was quite pessimistic as to the efficacy of the general engagement in deciding the war's outcome, and saw only the likelihood of renewed fighting against an enemy likely to grow stronger as he fell back on his sources of strategic supply and reinforcement. Neznamov sought a way out of this dilemma by maintaining the pace of the advance, and suggested that if the winner of the general engagement 'could uninterruptedly continue his offensive', then 'the war would soon become impossible' for the defeated party to prolong.¹²⁹ Elchaninov, his academic

¹²⁷ Triandafillov, Razmakh, p. 3.

¹²⁸ TsGASA, fond 33988, opis' 2, delo 688, p. 62.

¹²⁹ Neznamov, p. 11.

colleague, was more specific still, and wrote of a situation in which an 'unbroken series of local decisions' would culminate in a decisive result, following a prolonged effort.¹³⁰ This, in rudimentary form, was a formula for conducting a series of consecutive operations in which each operation would succeed a previous one and would, in turn, create the conditions for launching the next one, according to a larger strategic plan. While admittedly sketchy, these ideas did establish the groundwork for further work in this area and are one more indication of the continuity of operational theory in Russian-Soviet military thought.

These views were realized, in part, during World War I, although the positional stalemate which characterized much of the fighting tended to obscure the conduct of consecutive operations and relegate them to the war's more mobile periods. For example, one can detect elements of consecutiveness in the early weeks of the war in the West, which saw in quick succession the so-called 'Battle of the Frontiers', the German pursuit to the Marne River, and the Allied counterattack. In the East, the Germans and Austro-Hungarians eliminated the Russian salient in Poland in a series of operations during the summer of 1915, while a year later the Southwestern Front launched a number of consecutive offensives in the Lutsk area. The first systematic 'dosing' of operations took place during the spring and summer of 1918 (the Somme, 21 March-4 April; Flanders, 9-29 April; the Aisne, 27 May-4 June; Noyon-Montdidier, 9-13 June; and, Champagne-Marne, 15-17 July), as Ludendorff's offensives unfolded consecutively in time but separately in space along the front. Equally impressive was the Allies' series of offensive operations (the Aisne-Marne counteroffensive, 18 July-6 August; Amiens, 8 August-4 September; St. Mihiel, 12-16 September; and the various offensives against the German salient in northern France from late September to the Armistice) during the summer and fall, which did ultimately achieve the desired strategic result.

¹³⁰ Elchaninov, p. 309.

And while the Red Army's offensive operations were distinguished by a spatial scope which far exceeded that of the Great War, the same pattern of consecutive operations held true in an even more pronounced fashion during the Russian Civil War. In most cases, the final strategic objective was attained only after a series of consecutive operations. This was due not only to the war's thinly-held fronts, which made operational breakthroughs relatively easy to achieve, but also to the primitive supply situation which prevailed, especially in the Red Army. The first factor was more pronounced during the Civil War, while the second asserted itself with a vengeance during the brief conflict with Poland, with disastrous results for the Soviets.

During 1918-1920 the Red Army conducted a number of multiple-army and front consecutive operations. The most noted of these are listed, according to front, in the table on the following page.

One of the most talented of the former military specialists noted in a 1928 article that 'The theory of a series of consecutive operations is a direct reflection of the Civil War's experience in the operational sphere'.¹³¹ The Civil War and the war with Poland, more so than any other factor, were critical and in shaping the Red Army's views on conducting consecutive operations. This is hardly surprising, as the great mass of commanders could hardly have been expected to be familiar with the small body of literature on the subject, nor did all but a very few have the necessary command experience at the operational level during the Great War. The Civil War, for the greater part of the postwar command element during these years, had been the defining moment in their military careers, and they were eager to draw any number of theoretical conclusions from it. To a great extent, then, the theory of consecutive operations was to be the work of a small group of young, former military specialists and wartime officers, with only a small assist from the older specialists.

¹³¹ Shilovskii, 'Evoliutsiia', p. 27.

Table I.
RED ARMY CONSECUTIVE OFFENSIVE OPERATIONS, 1918-1920

	1918												1919												1920											
FRONT	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec						
EASTERN																																				
SOUTHERN/ SOUTHWESTERN																																				
SOUTHEASTERN/ CAUCASUS																																				
WESTERN																																				
SOUTHERN (against Wrangel)																																				

OPERATIONS

EASTERN FRONT: August (3-25 Aug., 1918); Kazan' (5-10 Sept.); Simbirsk (9-28 Sept.); Syzran'-Samara (14 Sept.-8 Oct.); Izhevsk-Votkinsk (15 Sept.-16 Nov.); Perm' (19-28 Jan., 1919); Buguruslan (28 Apr.-13 May); Belebei (15-19 May); Sarapul-Votkinsk (25 May-12 June); Ufa (25 May-19 June); Perm' (21 June-1 July); Zlatoust (24 June-13 July); Ekaterinburg (5-20 July); Cheliabinsk (17 July-4 Aug.); Petropavlovsk (20 Aug.-4 Nov.); Omsk (4-16 Nov.); Novonikolaevsk (20 Nov.-16 Dec.); Krasnoarsk (4-7 Jan., 1920).

SOUTHERN/SOUTHWESTERN FRONT: Winter (4 Jan.-early March, 1919); August (14 Aug.-12 Sept.); Orel-Kursk (11 Oct.-18 Nov.); Voronezh-Kastornaia (13 Oct.-16 Nov.); Mezhin-Poltava (12 Nov.-11 Dec.); Khar'kov (24 Nov.-12 Dec.); Kiev (1-16 Dec.); Donbass (18-31 Dec); Rostov-Novocherkassk (3-10 Jan., 1920); Odessa (11 Jan.-6 Feb.); Kiev (26 May-27 June); Novograd-Volynskii (19-27 June); Rovno (28 June-11 July); L'vov (23 July-20 Aug.).

SOUTHEASTERN/CAUCASUS FRONT: Khoper-Don (20 Nov.-8 Dec., 1919); Boguchar-Likhai (17 Dec., 1919-2 Jan., 1920); Tsaritsyn (26 Dec., 1919-3 Jan., 1920); Rostov-Novocherkassk (3-10 Jan., 1920); Don-Mamyh (17 Jan.-6 Feb.); Tikhoretsk (14 Feb.-2 March); Kuban-Novorossiisk (3 March-17 April).

WESTERN FRONT: May (14 May-8 June, 1920); July (4-23 July); Warsaw (24 July-25 Aug.).

SOUTHERN FRONT (against Wrangel): Counteroffensive (23 Oct.-3 Nov., 1920); Perekop-Chongar (7-17 Nov.).

The acceptance of this formula in the Red Army was reflected in the writings of a number of theorists of various backgrounds. One of these was Tukhachevskii, who on the basis of his experience against the Poles, wrote in 1923 that the impossibility of destroying the enemy's forces in a single battle now compels the attacker to achieve this 'through a series of consecutive operations', which now served the same purpose as the discredited general engagement.¹³² He was supported on this point by Kamenev, who stressed the 'uninterruptedness' of the Red Army's Civil War operations, as well as by Kolenkovskii.¹³³ Nor did Svechin have any trouble endorsing this position, and in language that was surprisingly similar to Tukhachevskii's. Svechin, in a typical historical analogy, noted that whereas the battles of Marengo and Jena had yielded Napoleon Italy and Germany at a single stroke, the French commander would now have to conduct a series of increasingly difficult consecutive operations in order to achieve the same ends.¹³⁴

Another was Triandafillov, who devoted a good deal of thought to the subject in several of his works. For Triandafillov, a successful breakthrough of the enemy front and its subsequent development into the enemy's depth inevitably raised the prospect of conducting 'a series of consecutive operations, following one after the other in time and space'. He firmly believed in the efficacy of such operations as a means of achieving strategic goals and, in fact, one of his primary demands of the shock army was that it be able 'to conduct a series of consecutive operations from beginning to end', based upon its own resources.¹³⁵

The best summation of this theory was delivered in a 1928 article by Varfolomeev, one of the younger former military specialists. Victory is now achieved, he wrote, through

¹³² Tukhachevskii, I. 141-42.

¹³³ Kamenev, pp. 72-75; Kolenkovskii, *O Nastupatel'noi*, pp. 46-47.

¹³⁴ Svechin, *Strategiia*, p. 177.

¹³⁵ Triandafillov, *Razmakh*, p. 4; *Kharakter*, p. 96.

... an entire series of operations, consecutively developing one after the other, logically linked between themselves, united by the commonality of the final goal, and each achieving limited, intermediate goals ... the operation's goals--the destruction and complete rout of the enemy's armed force; the method--an uninterrupted offensive; the means--a prolonged operational pursuit, avoiding pauses and halts and realized by a series of consecutive operations, of which each is an intermediate link on the road to the final goal, achieved in the final, decisive operation.¹³⁶

One of the most interesting and thorough analyses of the nature of consecutive operations was delivered by Nikolai Nikolaevich Movchin, and RKKA Staff worker and graduate of the Frunze Military Academy, whose Consecutive Operations According to the Experience of the Marne and the Vistula appeared in 1928. The book's title is indicative of the Red Army's continuing preoccupation with the Germans' 1914 advance on Paris and its own ill-fated war against Poland in 1920, the latter of which had left a deep and educational scar on the army's collective consciousness. The same theme was also taken up by the former specialist V.F. Novitskii's two-volume study of the 1914 campaign in Belgium and France, and by the red commander V.A. Melikov's history of the Marne and Vistula campaigns, as well as the Greek army's 1922 defeat by the Turks in Anatolia. This focus was not accidental, as all three episodes shared a number of operational-strategic traits: the dominant idea of 'destruction'; the attacker's early victories, followed by a period of sustained and deep pursuit to the enemy's heartland; the attacker's growing weakness due to combat losses and supply problems, and; the defender's ultimately successful counteroffensive, which the authors believed distinguish modern operations.

Movchin's work is particularly interesting for his remarks on the place of consecutive operations in the three-tiered Soviet formulation of military art. He believed that the theory of consecutive operations served as the 'theoretical foundation' and 'most important part' of operational art, while at the same time being an instrument of strategy, in accordance with the hierarchical subordi-

¹³⁶ Varfolomeev, 'Strategiia', p. 88.

nation already established by such writers as Svechin and Varfolomeev.¹³⁷ However, by so closely identifying the theory with operational art, Movchin found himself disagreeing with some of his more famous colleagues, who tended to emphasize the theory's strategic applications. Indeed, Tukhachevskii had already identified the Red Army's willingness to conduct consecutive operations as 'the foundation of our strategic success', while Triandafillov went even further, calling the theory 'one of the chief questions of modern strategy'.¹³⁸ The pair's wording is, at best, ambiguous, and it is difficult to determine whether they considered the theory of consecutive operations a branch of operational art, or an integral part of the theory of strategy itself.

This lack of clarity was also apparent in determining the place of the front in the theory of consecutive operations, and in operational art altogether. This ambiguity was a function both of the tsarist military legacy, as well as of the varying missions which the Red Army's fronts were required to accomplish during the Civil War. It should be recalled that the tsarist front/group of armies, occupying a theatre of military activities, was a body designed for carrying out purely strategic tasks, as did the Northwestern and Southwestern fronts, for example, in 1914. The Red Army copied this formula almost exactly with the creation of the Western and Southwestern fronts in 1920, although these pursued more strictly operational objectives. At the other extreme were the Eastern Front's operations during 1919, which are a unique example of a front carrying out a strategic mission embracing an entire theatre of war, despite the fact that the front was no larger than an average army. As a result, the inclusion of the front operation within operational art was a gradual one and not fully realized until the latter half of the 1930s.

¹³⁷ Movchin, *Posledovatel'nye*, p. 123.

¹³⁸ Tukhachevskii, Varfolomeev and Shilovskii, p. 86; Triandafillov, *Razmakh*, p. 4.

Triandafillov had been primarily concerned with the operations of a single shock army and only briefly mentioned the front. His plan for a decisive offensive along a 200-kilometer front would require at least 50 divisions in the first echelon alone, a force which would necessarily entail the participation of several other armies as part of a larger front operation. These armies, inferior in strength to the shock army/armies, would mount supporting attacks simultaneously with the main effort, because the main attack can only succeed if the defender can be prevented from shifting his reserves from the secondary sectors or withdrawing unhindered. Triandafillov recommended launching the front's secondary attacks with armies of three to four rifle corps in strength, each attacking along a 60-80 kilometer front. These attacks, because of the limited resources allotted to them, cannot generally count on significant success against a solidly-entrenched defender, at least at the start of the operation. However, from the moment of the shock army's/armies' breakthrough along the main front and the onset of the operation in depth, it was expected that the secondary attacks would achieve 'independent success'.¹³⁹

Movchn's focus, on the other hand, was primarily on the front, and his more abstract analysis tended to emphasize the qualitative distinctions between army and front operations more than had Triandafillov. The quantitative distinctions are obvious, as the army, which possesses fewer human and materiel resources than the front, is more restricted in its ability to conduct operations of the same duration or to the same depth as the latter. For example, Movchin calculated the average depth of a single army operation at 75-90 kilometers over a period of six to seven days, and that of a front at 120-150 kilometers over 10-15 days.¹⁴⁰

However, although the front operation is composed of any number of separate army operations, the former is more than just the sum of

¹³⁹ Triandafillov, Kharakter, pp. 122, 125-26.

¹⁴⁰ Movchin, Posledovatel'nye, pp. 96, 101.

its parts, and the qualitative distinctions between them according to goal are of a different order altogether. An army, given its limited resources, can safely pursue one operational objective at a time, while the front is capable of pursuing a number of such goals simultaneously. Movchin classified such operations as either 'simple' (army) or 'complex' (front), which recalls Mikhnevich's similar division of 'operational lines' according to the number of objectives an army or front might have.¹⁴¹ This distinction had important consequences for defining the front's role in conducting consecutive operations, as only the front possessed the requisite strength to realize operations to the necessary depth and to simultaneously achieve the manifold objectives, such as a double envelopment, required to decisively disrupt the enemy front. Because only the front can carry out these tasks simultaneously, Movchin concluded that 'The theory of a series of consecutive operations is the theory of a series of front (complex) operations'.¹⁴²

Movchin argued that the demands of a modern war required the creation of the front level of control between the high command and the armies in the field, and singled out for criticism the younger von Moltke's attempt to coordinate his seven armies on the Western Front from general headquarters, when, in fact, the latter were conducting three separate front operations. Conversely, Movchin warned that the high command should not burden the front commander with the conduct of more than one series of complex operations and supported the creation of fronts containing as few as three to four armies.¹⁴³ In fact, the Soviets eventually came to practice a variation of this proposal in World War II, during which the Soviet-German front at one time contained as many as a dozen fronts. This was sharply at odds with the previous habit of creating only one or, at most, two fronts per theatre of war.

¹⁴¹ *Ibid*, p. 116; Mikhnevich, *Strategiia*, I. 178, 180.

¹⁴² Movchin, *Posledovatel'nye*, p. 120.

¹⁴³ *Ibid*, pp. 11, 120.

Triandafillov favored the *Stavka*-front-army system of subordination for controlling the multiplicity of front and army operations, as had been the imperial practice in the First World War. The *Stavka*, as the supreme arbiter of military activities, outlines the fronts' operational-strategic tasks and provides the forces and materiel for achieving them. In certain cases, such as an offensive launched at the juncture of two fronts, the commander-in-chief may take direct control of operations. The Soviets eventually came to adopt an enlarged version of this proposal during World War II, whereby high-ranking *Stavka* representatives would sometimes coordinate the operations of as many as three fronts.

In the same fashion, the front commander would assign purely operational objectives to his subordinate armies in accordance with his plans. These included the latter's immediate objectives to a depth of 30-50 kilometers, in which the army commanders enjoy a good deal of latitude, beyond which they are assigned subsequent objectives in the enemy's operational-strategic depth.¹⁴⁴

Finally, Soviet writers also sought to distinguish a series of operations from the broader concept of a campaign. This was a simple task, as the groundwork for such a distinction had already been laid by Mikhnevich, who wrote in 1911 that 'Each war consists of one or several campaigns; each campaign--of one or several operations, from the initial strategic deployment to the final battle'.¹⁴⁵ Tukhachevskii reached a similar conclusion in 1926, when he defined the campaign as that portion of a war which may coincide with a series of consecutive operations, while Movchin saw the campaign as the 'totality of actions in a defined theatre of military activities over an extended period of time', which may include a number of consecutive operations, as well as non-consecutive ones.¹⁴⁶ This definition was in accord with the Soviets' own recent experience, in which a

¹⁴⁴ Triandafillov, *Kharakter*, pp. 180-82.

¹⁴⁵ Mikhnevich, *Strategiia*, I. 152.

¹⁴⁶ Tukhachevskii, I. 260; Movchin, *Posledovatel'nye*, p. 116.

number of fronts had conducted one or more series of consecutive operations as part of a larger campaign. This pattern would be repeated during World War II, most strikingly during the 1943-45 period, when the Red Army conducted a large number of consecutive offensive operations along the entire length of the Soviet-German front.

Equally interesting were Movchin's thoughts on the 'operational anatomy' of the two campaigns. From this he concluded that consecutive operations by large, modern armies in conditions of mobile warfare have certain elements in common. Chief among these was their division into three identifiable stages: the initial operation, the pursuit operation, and the decisive operation.

The most important of these is the initial operation (*iskhodnaia operatsiia*), which begins the cycle and whose result inevitably has a great influence on the conduct and outcome of succeeding operations. This operation,--or operations, as several initial operations may unfold simultaneously along modern broad fronts--proceeds directly from the belligerents' strategic deployment plans and encompass the first, large cross-border collisions. In those cases where both sides pursue offensive aims, the initial operation may develop as a meeting engagement of strategic proportions, as when the Allied and German armies collided in the so-called 'Battle of the Frontiers' in August 1914. At other times, the operation may unfold more one-sidedly, as when the Soviet Western Front attacked the Poles in Belorussia along a static front, where the latter had long since renounced any offensive intentions.

Movchin stated that in most cases a clear cut victory in the initial operation would ensure success in the succeeding ones. Neznamov had earlier voiced the same hopes, although in 1911 he was still thinking in terms of one or two opening general engagements of a less than decisive variety.¹⁴⁷ However, the most salient feature of the two campaigns' initial operations had been their strategical-

¹⁴⁷ Movchin, *Posledovatel'nye*, p. 23; Neznamov, p. 11.

ly-indecisive result, even though one of the sides suffered a sharp reverse. In both cases the losers were able to avoid a decisive defeat by disengaging and withdrawing into the interior of their respective countries. The inconclusive result, in turn, laid the foundation for the conduct of future operations in depth. However, Movchin warned that in certain extreme cases the opening operation might yield such meager results that the entire continuity of operations is disrupted at the very outset, and the attacker must undertake a new initial operation/operations, although this time from a point considerably closer to his opponents's vital areas.¹⁴⁸

The pursuit operation (*operatsiia po presledovaniiu*) begins when the defender admits defeat in the initial operation and attempts to save himself by retreating in the face of superior forces. In modern conditions this phase differs greatly in scope from earlier notions of pursuit, in which the dispirited elements of the defeated army were ridden down within the tactical radius of the battlefield. In the 20th century pursuit may be strategic in its scope and involve the greater part or all of the loser's armies along a broad front to a depth of several hundred kilometers. This was certainly the case in the two campaigns under study and encompasses the Allies' withdrawal from the Meuse and Sambre rivers to the Marne, and the even deeper Polish retreat from central Belorussia to the area between the Bug and Vistula rivers. Thus the pursuit phase had ceased being the finale of a single battle and had become an operationally-distinct part of a larger entity.

Movchin divided the pursuit operation into two distinct phases, based upon the defender's reaction to his initial defeat and the emerging strategic situation. The first phase comes about as the result of the defender's unwillingness to accept the magnitude of his defeat and sacrifice large territories by means of a strategic retreat. During this period he attempts to halt the attacker along a number of intermediate lines, such as at Le Cateau and Guise in 1914,

¹⁴⁸ Movchin, *Posledovatel'nye*, p. 112.

and in some instances may mount local counterattacks. The second stage begins when the defender realizes the inadequacy of these measures against an attacker who is still considerably stronger, and makes the decision to avoid a further, and possibly decisive, defeat by falling back upon his heartland. This phase also witnesses the extensive regrouping of the defender's forces to the threatened sector. The attacker, meanwhile, is hobbled by a damaged rail net and is unable to shift his own forces laterally to meet this challenge. This caused Movchin to note that while the pursuit's first phase is the 'logical conclusion of the initial operation', its second phase already contains a number of 'elements of a new operational grouping for the forthcoming decisive operation'.¹⁴⁹

The 'decisive operation' (*reshitel'naia operatsiia*) is the result of the attacker's desire to seize the enemy's political and economic heartland and the defender's resolve not to relinquish them without a major battle. For the former, it is the capstone of the operational cycle, while the defender finds himself in a classic 'backs against the wall' situation, in which the loss of these areas might mean losing the war as well. The latter is a debatable point, as even an Allied defeat along the Marne and the subsequent loss of Paris would by no means have meant a final German victory, even given a French political collapse. On the other hand, a Polish defeat on the Vistula and the fall of Warsaw would certainly have meant, barring foreign intervention, the sovietization of Poland. What is not in question is that in both cases the defenders were able to mount a devastating counteroffensive which changed the course of the war. How this came about and how to avoid a similar catastrophe in a future war was to prove one of the knottier problems the Red Army encountered in formulating a theory of consecutive operations.

For if the conditions of modern warfare had created a situation in which the consecutive conduct of operations was all but inevitable, these same conditions also rendered final victory increasingly

¹⁴⁹ *Ibid*, pp. 28-29.

difficult and drawn out. As we have seen, one of the chief reasons for modern armies' enhanced viability, even in defeat, is the enormous strain which the fighting puts on the winner, who may emerge nearly as weakened and disorganised as the loser. The problem is as old as war itself and one which has become particularly acute in an age of mass armies, with their heightened demands on equipment and personnel. Clausewitz had defined the problem nearly a century before in his apt phrase 'friction in war' (*Friktion im Kriege*), a collective term for the innumerable factors which serve to reduce an attacker's combat effectiveness over time. Among the operationally-significant factors contributing to 'friction' during the course of a lengthy advance are the loss of troop strength to occupation duties, losses due to fighting and sickness, the attacker's growing distance from his sources of supply, and the necessity of conducting sieges. Clausewitz believed that should the attacker persist in his advance the gradual accumulation of these factors 'will usually swallow up the superiority with which one began or which was gained by the victory'.¹⁵⁰

By far the most important of these factors is the problem of supply, for a continuous series of operations must needs be supported by the uninterrupted flow of men and equipment to the front. The great increase in the size of modern armies, the growing complexity of weapons and their increased rate of fire, put enormous supply strains on 20th century armies which had not been felt by the mass armies of the Napoleonic era, and which even the great improvements in transportation could only partially alleviate. Neznamov had noted this problem earlier and ranked supply difficulties and the necessity of 'ensuring the uninterrupted influx' of forces from the rear as the prime component of operational success.¹⁵¹ The validity of this statement was borne out several times during the First World War, during which the inability of the armies' rear services to meet their

¹⁵⁰ Clausewitz, pp. 527, 570.

¹⁵¹ Neznamov, p. 33.

offensive requirements often had as much to do with their failure as enemy resistance, as had been the case during the Russians' 1916 summer offensive. Even the 1918-20 struggle in the former Russian Empire, although waged at a lower level of military technology, confirmed in the end the importance of continuous materiel supply to operations.

At first it seemed otherwise, however, due to the highly-politicised nature of the Civil War. The Eastern Front, for example, was able to conduct a lengthy offensive and pursuit over several thousand kilometers, with only minor interruptions, from April 1919 to January 1920. The same was true of the Southern Front's offensive against Denikin, during which the Red Army was able to maintain almost continuous offensive pressure on the White forces for over five months. In both cases the Soviets were able to maintain or even increase their strength by mobilising the human and materiel resources of the politically-friendly areas through which they passed, even as their organic supply means fell hopelessly behind. Tukhachevskii's Fifth Army, for example, actually grew in size from 24,000 to 37,000 men during August-October 1919, while the Southern Front, which began the autumn 1919 campaign with around 100,000 men, finished it with the same number, in spite of heavy losses due to fighting and disease.¹⁵² The Whites, on the other hand, could rarely count on substantial local support outside certain areas, and their armies tended to melt away rapidly when the fighting moved beyond these areas and became prolonged or heavy. The Western Army, for example, began the Ufa operation with 46,000 men and ended it less than a month later with a mere 18,000, for a loss rate of 61%, mostly through desertion.¹⁵³ The difference in the two armies' conditions underlines the vital which political loyalties played in the war.

¹⁵² N. Varfolomeev, 'Strategicheskoe Narastanie i Istoshchenie v Grazhdanskoi Voine' [Strategic Accumulation and Exhaustion in the Civil War]. In Bubnov, Kamenev and Eideman, II. 269, 273.

¹⁵³ *Ibid*, p. 268.

However, once the struggle shifted to Poland and became a war not of classes, but of nations, the Soviets were no longer able to rely on the support of a sympathetic local population to cover their supply and recruitment needs, and the further the Red Army pressed into Poland the more its ability to 'live off the land' declined. Thus the Western Front, during its six-week offensive, lost up to 40% of its strength and was unable to make good its losses, and many of the divisions which had begun the campaign with 6,000-8,000 men arrived at the Vistula with no more than 2,500-3,000.¹⁵⁴ We have already seen that there were more than enough replacements available in the rear areas, but they could not be brought up in time because of damage to the rail network and the chaotic condition of the Soviet quartermaster system. As one historian later put it, the Red Army's attempt to 'mechanically apply' the 'methods and routines' of the Civil War ended in disaster, as Tukhachevskii's exhausted armies collapsed in the face of a renewed Polish attack.¹⁵⁵

The Polish campaign's sobering experience did much to impress the Soviets with the importance of the smooth functioning of the rear services. By 1924 Frunze was writing that operational success now depended more on the proper organisation of the rear organs than on battlefield control.¹⁵⁶ Even writers normally as divergent in their views as Svechin and the red commander Melikov found that they could agree on the critical importance of uninterrupted materiel supply.¹⁵⁷ The best distillation of the new Soviet thinking on the subject was delivered by Varfolomeev in 1928. He declared that success in a series of consecutive operations carried to a great depth now depends on proper supply, which Varfolomeev termed 'the successful struggle against the consequences of accompanying strate-

¹⁵⁴ Triandafillov, Kharakter, p. 132; Bubnov, Kamenev and Eideman, II. 277.

¹⁵⁵ V. Putna, K Visle i Obratno [To the Vistula and Back] (Moscow, 1927), p. 240.

¹⁵⁶ Frunze, Izbrannye, II. 177.

¹⁵⁷ Svechin, Strategiia, p. 192; Melikov, Marna, p. 333.

gic exhaustion'.¹⁵⁸

In this regard, the most important factor affecting the attacker's ability to conduct a series of consecutive operations over an extended period was the likely heavy losses in men and equipment. Triandafillov calculated that the attacker's losses might reach 12-20% of the first echelon's divisions in the initial operation, and no less than 20-30% of all units during succeeding operations. He proposed to offset these losses by creating reserve regiments equal to 20-25% of the first echelon's corps to make good the losses suffered during the initial operation, while army reserve units, amounting to 20-25% of the army's total strength, would follow in the advance's second echelon to maintain the attack's momentum.¹⁵⁹ Movchin put the front's probable loss in the course of a month's fighting at 30%, which he believed could be made good by preparing immediate reserves totalling 10% of the front's strength, with the remainder arriving during the course of operations.¹⁶⁰ The common thread running through all these comments was that failure to take into account the critical factor of uninterrupted supply would be to repeat the attacker's mistakes along the Marne and Vistula, when they arrived for the decisive battle exhausted and understrength, and in no condition to meet the enemy counteroffensive.

However, the attacker's ability to satisfy these requirements collides with the inherent contradictions of the pursuit phase itself, which tend to work against the pursuer. On the one hand, effective pursuit requires that the attacker's rate of advance equal or exceed the defender's rate of retreat, in order to cut off the latter's withdrawal and prevent the establishment of a new defensive front. Triandafillov calculated the defender's capacity to retreat along an undamaged rail network at up to 25-40 kilometers per day, while the pursuer is limited to no more than an 8-12 kilometer ad-

¹⁵⁸ Varfolomeev, 'Strategiia', p. 88.

¹⁵⁹ Triandafillov, Kharakter, pp. 148, 160-61.

¹⁶⁰ Movchin, Posledovatel'nye, p. 99.

vance.¹⁶¹ Triandafillov and Varfolomeev both sought technical solutions to close the gap. These consisted of creating highly-mobile pursuit units of tanks and motorized infantry to carry out a parallel pursuit along the enemy's flanks, attacking his rear units and otherwise disrupting his withdrawal.¹⁶² However, the means to accomplish this were not available to the Red Army, and would remain so for some years.

Furthermore, any effort to increase the meager rates of advance with the primitive means at hand ran into the seemingly-intractable problem of adequately supplying the troops by rail. This is because the rear organs' ability to keep the armies at strength during the course of such a lengthy offensive is directly dependent upon the rail system's optimal functioning. However, given the railroads' vital importance, a retreating army is likely to carry out the systematic destruction of not only the tracks, but of bridges and supporting structures as well. This, in turn, necessitates a great deal of repair work by the pursuer, with serious implications for the conduct of operations to any appreciable depth. Triandafillov predicted that future major operations would involve widespread rail destruction on the defender's part, with the attacker capable of repairing on the average only five to six kilometers per day, although this figure might rise to as high as 15-20 kilometers in especially favorable circumstances. Kolenkovskii was in agreement with the first figure, while Movchin was slightly more optimistic, calculating the average speed of railroad repair at eight to ten kilometers per day.¹⁶³ Moreover, even a restored rail line could not be brought up to full capacity immediately, causing further delays in the delivery of men and supplies. Based on these figures,

¹⁶¹ Triandafilov, Kharakter, p. 164.

¹⁶² Ibid, p. 146; N. Varfolomeev, 'Dvizhenie Presleduiushchei Armii k Poliu Reshitel'nogo Srazheniia' [A Pursuing Army's Movement to the Decisive Battlefield], Revoliutsiia i Voina [Revolution and War] (1921), no. 13, p. 80.

¹⁶³ Triandafillov, Kharakter, p. 154; Kolenkovskii, O Nastupatel'noi, p. 53; Movchin, Posledovatel'nye, p. 40.

Triandafillov calculated that a series of consecutive operations, conducted to a depth of 300-350 kilometers over a month, would outstrip the refurbished railroads by as much as 150-200 kilometers, while Movchin predicted that operations conducted to a depth of 300-400 kilometers over the same period would outrun their railroads by 120-150 kilometers.¹⁶⁴

Nor was the situation improved appreciably by the inclusion of horse or automobile transport into this system, due chiefly to the primitive road network along the USSR's western frontier and the Red Army's own low level of mechanisation. Triandafillov calculated that an army based exclusively on horse transport for the final stage of supply delivery may conduct consecutive operations only to a depth of 135-150 kilometers, which he declared insufficient for decisive success against an opponent occupying a broad front. Even the addition of thousands of supply trucks, which the Red Army did not possess, would extend the attacker's reach by no more than 140 kilometers. These bleak figures forced him to conclude that existing conditions of materiel supply limited the maximum depth of a series of consecutive operations to 250 kilometers, and then only if the attacker was well-supplied with motorised transport.¹⁶⁵

Thus the vagaries of the attacker's supply situation tended to put certain 'natural limits' on the depth and duration of a series of consecutive operations. Movchin believed that these limits would come into play during the transition between the pursuit and decisive operations.¹⁶⁶ To ignore these limits and enter into the final battle with an exhausted and undersupplied army was to risk a decisive counteroffensive and defeat by a revived opponent.

Movchin's ideas on 'operational exhaustion' had much in common with Clausewitz's earlier belief that even an advance begun under the most favorable circumstances cannot be sustained indefinitely, due to

¹⁶⁴ Triandafillov, *Kharakter*, p. 157; Movchin, *Posledovatel'nye*, p. 104.

¹⁶⁵ Triandafillov, *Kharakter*, pp. 157, 159-60.

¹⁶⁶ Movchin, *Posledovatel'nye*, p. 113.

the inevitable 'frictions' of war. Clausewitz had noted the offensive's tendency to wane over time and spoke of the 'culminating point of the attack' (*Kulminationspunkt des Angriffs*) as that unseen line beyond which 'the scale turns and the reaction follows with a force that is usually much stronger than that of the original attack'.¹⁶⁷ Thus even a successful operation, because of its dependence on uninterrupted materiel supply and its tendency to outrun the latter, carries within itself the seeds of its own destruction, to paraphrase Marx. These were notions which had a particular resonance for an army still smarting from its defeat in 1920 and which inspired a number of theorists to seek a way out of the dilemma.

One of the most thoughtful of these was Svechin, who was no doubt attracted to Clausewitz's ideas regarding offensive 'overreach' by the points which they shared with his own views concerning a more moderate approach to conducting operations. Svechin's work also reveals a conscious effort to find a formula for conducting operations which would impose some constraints on the more offensive-minded commanders, whose enthusiasm for the uninterrupted offensive was pregnant with the very dangers which Clausewitz had pointed out. Svechin emphasized that the attacker's decision to continue the offensive, following the initial operation, places a growing strain on his communications and ability to maintain his strength; the further he moves into enemy territory the weaker he becomes *vis a vis* the defender, who is able to draw upon an undamaged resource base and a shorter supply line to alter the correlation of forces in his favor. The experience of recent campaigns caused Svechin to conclude that 'The responsibility of strategy is to not allow offensive operations to drag out to the last gasp' and 'to halt the offensive in time'.¹⁶⁸

This warning found a surprisingly sympathetic response among the more offensive-minded commanders, perhaps because they had seen

¹⁶⁷ Clausewitz, p. 528.

¹⁶⁸ Svechin, *Strategiia*, pp. 224-25.

for themselves what becomes of an offensive operation pushed beyond its limits. These included one writer who repeated Svechin nearly word for word, writing that a commander must 'foresee the culmination point' of an operation and halt it in time.¹⁶⁹ The same point was also made by Melikov and Novitskii in their works on recent consecutive operations.¹⁷⁰ Triandafillov wrote in the same vein that 'The art of the strategist and operator is to correctly feel that limit in human and materiel means', beyond which follows exhaustion and defeat.¹⁷¹

Movchin offered two practical recommendations for avoiding such an outcome. The first was to bring the initial operation closer to the enemy's vital areas by beginning the war with a number of limited operations along the frontier. Such a move, he argued, would not only place the enemy's heartland within range of any subsequent operational sequence, but it would also ease the attacker's later supply problems because of his more advanced state of mobilisation. He also recommended a halt in the advance at the close of the pursuit operation. This would enable the pursuer to bring up his lagging supply organs and be reinforced so as to resume the offensive and enter the decisive operation with a good chance of success.¹⁷²

Triandafillov also recommended shutting down operations at some stage to avoid overtaxing the pursuer's forces. Given the likely rate of railroad repair, he calculated this pause at a minimum of two to three weeks, in order to accumulate sufficient materiel supply before resuming operations along the same axis. Triandafillov, rather than grant the defender a respite during this period, recommended mounting new operations elsewhere along the front.¹⁷³ The latter presupposes the attacker's having the overall strategic

¹⁶⁹ Vol'pe, p. 234.

¹⁷⁰ Melikov, Marna, p. 203; Novitskii, I. 506.

¹⁷¹ Triandafillov, Kharakter, p. 162.

¹⁷² Movchin, Posledovatel'nye, pp. 110, 114.

¹⁷³ Triandafillov, Kharakter, p. 170.

initiative, which allows him to strike at will along widely-separated sectors of the front, and forecast in broad outline the strategy which the Soviets eventually pursued so skillfully in 1943-45.

However, the Soviets' obvious enthusiasm for this and other mechanistic formulae should not cause the reader to think that the Red Army was deficient in devising more concrete plans for conducting consecutive operations against its enemies during the 1920s. These plans were directed chiefly against the USSR's western neighbors and conditioned by the belief that the Soviet Union would have to wage a future war against a coalition of these and other powers. Added to this was the knowledge that the Red Army could not eliminate all of these countries in a single campaign, but would require a series of sustained efforts to complete the task.¹⁷⁴ That the conduct of consecutive operations against these countries was inherent in Soviet strategy is clear from Tukhachevskii's 1926 exhortation that the Red Army must have a plan for eliminating the enemy coalition 'in detail, consecutively and systematically'.¹⁷⁵ Tukhachevskii, as Chief of Staff, took a leading part in drawing up these plans.

Practically speaking, the swift conquest of Estonia and Latvia did not present a particular problem, as their inconsequential depth and small armed forces offered little hope of prolonged resistance against a major attack. Tukhachevskii, in this case, favored a decision in the course of a 'single decisive operation', which would secure these countries before the British fleet could intervene. The conquest of Rumania promised to be more difficult than the Baltic States, due to its larger army and greater territorial depth. However, this was by no means an insuperable problem, and it was calculated that a series of consecutive operations would soon carry the Red Army to the political and economic center of Bucharest and quickly end the war.¹⁷⁶

¹⁷⁴ TsGASA, fond 33988, opis' 2, delo 688, pp. 57, 91.

¹⁷⁵ Tukhachevskii, I. p. 256.

¹⁷⁶ Tukhachevskii, Varfolomeev and Shilovskii, pp. 24, 29-30.

However, the Soviet Union's own military weakness dictated that Romania could not be effectively dealt with until after the defeat of Poland, the strongest military power in Eastern Europe, and as such, the key to Soviet strategy in the region. Tukhachevskii's views on this question ran the gamut from wildly optimistic to deeply pessimistic. In 1926 he wrote that it was 'theoretically possible' to defeat the Poles 'by a series of consecutive, uninterruptedly conducted, operations', which would climax in a decisive battle along the middle Vistula, some 300-350 kilometers from the Soviet border.¹⁷⁷ However, only two years later his views and those of the RKKA Staff had sobered considerably and he had renounced the possibility of defeating Poland in a rapid series of such operations, and was now predicting a much longer struggle, which might last as long as three years.¹⁷⁸

By the end of the 1920s the theory of consecutive operations had become one of the prime components of the Soviet conduct of operations. The theory, for all of its schematic quality and reliance on the evidence of past wars, nevertheless performed the service of focusing the Red Army on the critical role played by the rear organs in offensive operations. In recognition of this fact, questions of materiel supply soon came to occupy a prominent place in the Frunze Academy's course of operational instruction.¹⁷⁹ Moreover, the theory of consecutive operations, like that of the army operation, proved quite adaptable to the technically more-advanced army that was coming. It also served as the theoretical basis for many of the Red Army's great front and multi-front offensive operations during the latter half of World War II, and remained a fixture of Soviet operational thinking for many years beyond.

¹⁷⁷ Ibid, pp. 28-29.

¹⁷⁸ TsGASA, fond 33988, opis' 2, delo 688, pp. 56-57, 60-61.

¹⁷⁹ Varfolomeev, 'Strategiia', pp. 91-92.

CHAPTER IV. THE FLOWERING, 1930-1937

A. Introduction

It was a basic tenet of the Soviet view of war that a country's military art is determined chiefly by its level of economic development. This maxim applies to capitalist and socialist states alike and its disturbing consequences were becoming increasingly obvious to the Soviet leadership as the 1920s drew to a close. Although it was true that by 1928 the USSR had regained or surpassed the prewar (1913) level of production, the country still lagged dangerously behind the developed capitalist powers, which had used the years since 1918 to move even further ahead in the area of military technology. For the ever-suspicious Soviet leadership the situation was pregnant with disaster. Joseph Stalin stated the problem succinctly at a plenum of the party's Central Committee in late 1928. 'It is impossible to defend our country's independence', he said, 'lacking a sufficient industrial base for defence'. Stalin, honing the point further, stressed the military necessity of economically overtaking the advanced capitalist nations. 'Either we achieve this', he warned, 'or they will wipe us out'.¹

The dictator and his henchmen were determined to transform backward, peasant Russia into a modern industrial and military power overnight, regardless of the cost. They were determined that the next war, when it came, would not find the country in the same situation as tsarist Russia, which had been defeated by a smaller but industrially-superior Germany. Nor were Stalin's concerns on this score completely unfounded, as had been the case with previous 'war scares'. The 1930s saw the overall worsening of the USSR's strategic position in both Europe and Asia, due to the revival of Japanese

¹ Stalin, XI. 248.

expansionism and Hitler's accession to power in Germany. Japan's conquest of Manchuria and Germany's ambitious rearmament program further exacerbated these fears. The Soviet Union's diplomatic isolation and the prospect of a two-front war with what were regarded as the harbingers of a renewed capitalist assault, caused Stalin to press his 'revolution from above' with even greater ferocity.

The heart of the Stalinist program lay in the two Five-Year plans (1928-37) for the social transformation of the country. The outlines of the first Five Year Plan (1928-32) were drawn up at the 15th party congress in December 1927. However, the relatively modest growth rates then envisaged were progressively radicalised throughout 1928 and gave Stalin the issue he needed to break with his former allies, Bukharin and Rykov. The 16th party conference in April 1929 adopted in full the dictator's plan for the forced industrialisation of the economy and the mass collectivisation of private peasant holdings. During this period the remaining opponents of Stalin's policies were quickly defeated and removed from their positions, leaving the dictator and his followers free to pursue their course without hindrance.

The overall quantitative results of this policy were indeed impressive and Stalin's policies succeeded in transforming the Soviet Union into a modern industrial state of sorts within a few short years, even as the capitalist world was sliding into depression. By the end of the second Five-Year Plan (1933-37), overall industrial production had increased nearly 600% over the 1913 level, while the output of the means of production increased by more than 1,000%.² In fact, so great was the growth in industrial production that by the end of 1937 the Soviet Union was in some areas the leading industrial power in Europe, and lagged only behind the United States in the world. The following table gives an idea of the surge in industrial production during these years, according to a number of indices.

² Tsentral'noe Statisticheskoe Upravlenie pri Sovete Ministrov SSSR, Promyshlennost' SSSR. Statisticheskii Sbornik [Industry of the USSR. A Statistical Collection] (Moscow, 1957), p. 9.

Table 2. Soviet Industrial Production, 1928-37

	1928	1932	1937
Oil (millions of tons)	11.6	21.4	28.5
Coal "	35.3	64.4	128.0
Cast Iron "	3.3	6.2	14.5
Steel "	4.3	5.9	17.7
Iron Ore "	6.1	12.1	27.8
Automobiles (thousands)	.84	23.88	199.9 ³

But the cost in human suffering was enormous and far exceeded that of the harshest periods of development in the capitalist countries during the 19th century. Hardest hit were the country's peasants, whose centuries-old way of life was brutally turned upside down within a few short years. By 1937 93% of the nearly 25 million peasant households had been herded into the new collective and state farms, compared to a mere 1.7% in 1928, in one of the worst and least known human disasters of the century.⁴ It has been estimated that as many as 14.5 million peasants died as the result of starvation and the various punitive measures which accompanied collectivisation.⁵ The situation was hardly better in the cities, as millions of new industrial workers were crowded into the new towns and factories springing up all over the country, and made to labour and live under the most primitive conditions. The standard of living plummeted drastically, as every fiber of the nation was strained to meet the goal of building 'socialism in one country'.

Equally grim was the vast network of labour camps run by the GULag (Main Administration of Corrective Labor Camps) and the concomitant growth in other mechanisms of the modern police state. The

³ Tsentral'noe Statisticheskoe Upravlenie pri Sovete Ministrov SSSR, Narodnoe Khoziaistvo SSSR, 1922-1972. Iubileinyi Statisticheskii Ezhegodnik [The USSR National Economy, 1922-1972. An Anniversary Statistical Yearbook] (Moscow, 1972), pp. 136, 138.

⁴ Tsentra'noe Statisticheskoe Upravlenie pri Sovete Ministrov SSSR, Strana Sovetov za 50 Let. Sbornik Statisticheskikh Materialov [The Soviet Nation After 50 Years. A Collection of Statistical Materials] (Moscow, 1967), p. 116.

⁵ R. Conquest, The Harvest of Sorrow. Soviet Collectivization and the Terror-Famine (London, 1986), p. 306.

camps had existed in one form or another since the early days of the Soviet regime, but their numbers increased dramatically as the scale of repression rose sharply after 1929. Forced labour played a key role in the construction of such prestige projects as the Baltic-White Sea and Moscow-Volga canals, which cost thousands of lives. By the beginning of 1937 as many as five million prisoners may have been held in these camps, and forced labour had become an essential component of the Soviet economy.⁶

The sweeping changes taking place in the country's economy had an equally dramatic effect on the qualitative growth of the Red Army, which is discussed in greater detail in the next section. The quantitative changes were also significant, and the armed forces more than doubled in size from 617,000 men in 1928, to 1,433,000 in 1937.⁷ The transition to a larger and more technically-sophisticated army was the beginning of the end for the mixed territorial-cadre system, which was increasingly incapable of meeting the army's needs. In May 1935 the decision was made to gradually put the army on a single cadre system of recruitment, and by the end of the year 77% of all divisions were of the cadre type.⁸

Important changes were also taking place in the higher military organs. In June 1934 the People's Commissariat of Military and Naval Affairs became the People's Commissariat of Defence. Although Voroshilov continued to head the military establishment, it was widely recognized that the defence commissar lacked 'any practical and theoretical basis in the field of military science and military art', and had to rely on Tukhachevskii, Triandafillov and others.⁹

⁶ R. Conquest, The Great Terror. Stalin's Purge of the Thirties (London, 1968), p. 532.

⁷ A.A. Grechko, ed., Istoriia Vtoroi Mirovoi Voiny, 1939-1945 [The History of the Second World War, 1939-1945] (Moscow, 1973-80), I. 270; P.N. Pospelov, ed., Istoriia Velikoi Otechestvennoi Voiny Sovetskogo Soiuza, 1941-1945 [The History of the Great Patriotic War of the Soviet Union, 1941-1945] (Moscow, 1960-65), I. 90.

⁸ Zakharov, 50 Let, p. 198.

⁹ Zhukov, I. 186-87.

At the same time, the Civil War-era Revolutionary Military Council was abolished and its functions taken over by the Defence Commission, a permanent body attached to the Council of People's Commissars. Later that same year the Military Council was created as an advisory body to the defence commissariat. In April 1937 the Defence Commission became the Defence Committee and the old Council of Labour and Defence was formally abolished. In September 1935 the RKKA Staff was renamed the RKKA General Staff. Egorov, who had succeeded Shaposhnikov as Chief of Staff in 1931, continued at this post until the latter's return in May 1937. Ia.B. Gamarnik had already succeeded Bubnov as head of the RKKA Political Directorate in 1929 and served as the armed forces' chief commissar until his suicide in May 1937.

For the most part, these were happy times for the Red Army, which until 1937 remained the favored child of party and state, and was spared, at least temporarily, many of the horrors being visited upon other parts of Soviet society. The armed forces' leadership had good reason to be pleased with the amount and variety of modern equipment it was receiving and remained firmly behind the regime even through the worst of the collectivisation crisis. The army's loyalty was rewarded in September 1935 with the introduction of officer's ranks, although the term itself remained politically taboo. Two months later, Voroshilov, Budennyi, Egorov, Tukhachevskii and Bliukher were created marshals of the Soviet Union.

However, there were disturbing signs, which the army's leadership would ignore at its peril. Among these was the growing imposition of Stalinist orthodoxy in all walks of life, including the military. This phenomenon coincided with the dictator's achievement of unchallenged authority by 1929 and was tirelessly propagated throughout the armed forces by his creature, Voroshilov.¹⁰

Equally worrisome were the Shakhty trial (May-July 1929) and

¹⁰ Two of the more egregious examples of the Stalin cult in the army are Voroshilov's article 'Stalin and the Red Army', which appeared on the dictator's 50th birthday in 1929. See Voroshilov, pp. 346-64. See also R. Eideman, 'K Izucheniiu Istorii Grazhdanskoi Voiny' [On Studying the Civil War's History], *V&R* (1932), no. 2, pp. 90-99.

the trial of the so-called 'Industrial Party' leadership (Nov.-Dec. 1930) on charges of 'wrecking', which were indicative of a growing mania in society for rooting out 'spies' and 'saboteurs'. The trials also represented the party's decision to break with the 'bourgeois specialists' in favor of Soviet-era cadres, a move which had fateful consequences for the remaining former tsarist officers in the army. Prominent among those who fell afoul of the new order were Svechin, Verkhovskii and the Civil War historian N.E. Kakurin, who were arrested in 1930. Tukhachevskii used the opportunity to subject his old rival's views to scurrilous criticism, labeling Svechin's ideas as 'defeatist' and the author himself as 'an agent of imperialist intervention'.¹¹ Svechin and Verkhovskii were released in 1932 and allowed to return to their teaching duties at the Frunze Military Academy, while Kakurin languished in prison until his death in 1936.

On December 1 1934, S.M. Kirov, the Leningrad party boss, was assassinated. Stalin was quick to take advantage of this deed to begin a wholesale purge of the party and government apparatus, which came to be known as the *Ezhovshchina*, named after Stalin's notorious secret police chief, N.I. Ezhov. Among the victims were almost all of the dictator's defeated rivals, whom he proceeded to accuse of plotting with the exiled Trotskii to overthrow the state and restore capitalism. One by one, Zinov'ev, Kamenev and other former notables were found guilty of various fantastic crimes in a series of 'show trials' and subsequently executed. Hundreds of thousands of lesser officials perished in the same fashion, while millions more were sentenced to almost certain death in the vast labour camp empire.

The armed forces at first seemed safe from the bloodletting, but by early 1937 there were ominous signs that their privileged status was coming to an end. Tukhachevskii was fleetingly implicated in one plot, while a number of other officers were arrested by the

¹¹ M. Tukhachevskii, 'O Strategicheskikh Vzgliadakh Prof. Svechina' [On Prof. Svechin's Strategic Views] In K. Bocharov, I. Nizhechek and P. Suslov, eds., Protiv Reaktsionnykh Teorii na Voennonauchnom Fronte. Kritika Strategicheskikh i Voennoistoricheskikh Vzgliadov Prof. Svechina [Against Reactionary Theories on the Military-Scientific Front. A Criticism of Prof. Svechin's Strategic and Military-Historical Views] (Moscow, 1931), pp. 6-7.

secret police, the NKVD. Stalin's intention of bringing the armed forces to heel became evident that May, when the system of dual command was restored, effectively binding the military even closer to the party apparatus. Later that same month, Tukhachevskii and the military district commanders I.E. Iakir and I.P. Uborevich were removed from their posts and the pace of arrests went into high gear.

B. The Red Army's Technical Reconstruction

The armed forces were the chief beneficiary of the USSR's superhuman industrialisation effort during the 1930s. While the great majority of the population endured unimaginable hardships, those sectors of the economy linked to defence production were comparatively well off. The military's total share of budgetary allocations, for example, rose from 11% during the first Five-Year Plan to 16.4% in the second.¹² If anything, the figures probably underestimate the military's share of the budget and include only those expenditures directly related to the maintenance of the armed forces, with other, related costs hidden within various commissariats. Whatever the actual state of affairs, there is no doubt that Soviet arms production did increase dramatically during this period, as the following table illustrates.

Table 3. Soviet Weapons Production, 1930-37¹³

WEAPONS	AVERAGE YEARLY PRODUCTION		
	1930-31	1932-34	1935-37
AIRCRAFT (total)	860	2,595	3,578
Bombers	100	252	568
Fighters	120	326	1,278
TANKS	740	3,371	3,139
ARTILLERY (total)	1,191	3,778	5,020
Small-calibre	1,040	2,196	3,609
Medium-calibre	870	1,602	1,381

¹² Grechko, *Istoriia*, I. 213.

¹³ Pospelov, I. 65

An important milestone in the Red Army's technical makeover was the Central Committee's July 1929 decree 'On the State of the USSR's Defence', which charted in broad outline the future growth of the nation's military and stressed the need for increasing the proportion of technical troops by greatly expanding the numbers of tanks, artillery, armoured cars and aircraft.¹⁴ This general directive was continually refined and a new plan for the 1934-38 period was adopted four years later. Separate plans for the technical renovation of the navy, air force and artillery were also drawn up during 1933-35. In 1929 the post of Chief of RKKA Armaments was established to oversee this ambitious program. The first chief was the former tsarist ensign, I.P. Uborevich, who was succeeded in 1931 by Tukhachevskii. In 1936 a separate People's Commissariat of the Defence Industry was established.

The rearmament program did not proceed smoothly, however, and there inevitably arose a number of problems connected with an undertaking of this magnitude. The breakneck speed with which the program was adopted and the unthinking zeal for mechanisation in any form led to an enormous waste of resources and several quantitative excesses in certain of the combat arms, particularly the armoured branch. Moreover, a chronic shortage of factories, materials, skilled workers and experienced weapons designers plagued the military industry throughout most of this period. In 1929, for example, the planned output for tanks was achieved by only 20%, and as late as 1937 rifle and artillery production was only 70% of projections.¹⁵ The qualitative results were frequently disappointing as well, and many of the early tank and aircraft models were decidedly inferior to their western counterparts. Nevertheless, in spite of enormous difficulties, the USSR's rearmament drive was, quantitatively speaking, a

¹⁴ N.I. Savinkin, K.M. Bogoliubov, comps., KPSS o Vooruzhennykh Silakh Sovetskogo Soiuza. Dokumenty, 1917-1981 [The CPSU on the Armed Forces of the Soviet Union. Documents, 1917-1981] (Moscow, 1981), p. 259.

¹⁵ Grechko, Istoriia, I. 260, II. 90.

huge success, as the following table reveals.¹⁶

Table 4. The Red Army's Weapons Park, 1928-35

WEAPONS AND EQUIPMENT	1928	1932	1935
Rifles (thousands)	1,596	2,292	3,050
Machine Guns (light)	8,811	22,553	83,922
Machine Guns (heavy)	24,230	33,118	53,492
Artillery (76-mm and larger)	6,645	10,684	13,837
Tanks (mostly light)	92	1,053	7,633
Tankettes	0	348	2,547
Armoured Cars	7	213	464
Automobiles	1,050	5,669	35,303
Aircraft	1,394	3,285	6,672

The steady influx of new weapons and equipment also gave rise to plans for reorganising the Red Army along more modern lines. By far the most ambitious of these was put forward by Tukhachevskii in early 1930, when the rearmament program was barely underway. He wrote from his semi-exile as chief of the Leningrad Military District, to which he had been dispatched in 1928 following a policy dispute with Voroshilov. Tukhachevskii, in a report to his nemesis, emphasised that the emergence of a qualitatively-new army made it necessary to expand its size and increase its mobility and offensive strike power by employing large numbers of tanks and aircraft. He proposed creating the foundations of an army which could mobilise to a strength of 200 divisions in 28 days, with the vast majority arrayed against the USSR's western neighbors, particularly Poland. The remainder would be confined to internal military districts and the high command reserve. This force would be further supported by 50 artillery divisions, plus heavy gun and mortar units; 225 reserve machine gun battalions; 40,000 aircraft and 50,000 tanks.¹⁷

Tukhachevskii's proposal is an example of the Soviet penchant

¹⁶ *Ibid*, I. 270.

¹⁷ M.N. Tukhachevskii, Dokladnaia Zapiska Komanduiushchego Leningradskogo Voennogo Okruga Narodnomu Komissaru po Voennym i Morskim Delam K.E. Voroshilovu [Memorandum of the Commander of the Leningrad Military District to the People's Commissar of Military and Naval Affairs, K.E. Voroshilov], [Moscow], 11 January 1930, TsGASA, fond 7, opis' 1, delo 170, pp. 12, 16-17.

for gigantism at its worst, and would be beyond the country's productive capacity to fulfill or the army's capacity to absorb for many years to come. Stalin and Voroshilov brusquely rejected the plan as 'red militarism', and likely to undermine the national economy if it were attempted.¹⁸ Tukhachevskii's views, however, were partially vindicated in 1931, when he was recalled to Moscow to oversee the implementation of a more modest version of his plan.

The practical effects of the army's makeover were not long in making themselves felt in the army's organisation and equipment mix, and that of its component parts. At the beginning of the 1930s the Red Army was divided into four services: the ground forces, air force, navy and air-defence forces. Of these, the ground forces were by far the largest in size and most important. They also dominated the Defence Commissariat and upper echelons of the RKKA, where the three other services existed as mere directorates. However, this situation began to change with the arrival of more sophisticated equipment and the consequent strengthening of the more technical services at the expense of the ground forces, with its heavy infantry complement. Thus despite the more than twofold increase in the armed forces' size during these years, the ground forces' relative weight within the RKKA actually fell from 92.6% in 1928 to 79.3% in 1935. Conversely, the air force's share grew from a mere 2% in 1928 to 9.6% in 1935, and that of the navy increased from 5.4% to 8.9%. The air defence forces, which did not even exist as a separate service in 1928, accounted for 2.2% of the total by 1935.¹⁹

Within the ground forces (rifle troops, cavalry, armoured and mechanised troops, artillery, airborne troops and others) similar changes were taking place in favor of the more technical arms. This led to an overall decline in the proportion of rifle troops from 58% to 49%, despite a twofold growth in their absolute numbers between

¹⁸ S. Biriuzov, 'Voenno-Teoreticheskoe Nasledstvo M.N. Tukhachevskogo' [M.N. Tukhachevskii's Military-Theoretical Heritage], *V-IZh* (1964), no. 2, p. 40.

¹⁹ Grechko, *Istoriia*, I. 270.

1929 and 1938.²⁰ At the same time, the infantry arm benefited tremendously from the rearmament program in the direction of increased firepower and mobility. Whereas a rifle division in 1925 had an authorized strength of 12,800 men, 54 guns, 189 heavy machine guns and 81 light machine guns, its 1935 counterpart contained slightly more men, but had become much 'heavier' in other respects. It now included 57 tanks, 96 guns, 180 heavy machine guns, 354 light machine guns, and 18 anti-aircraft machine guns. A rifle corps, the largest tactical formation, contained three rifle divisions, plus two artillery regiments, an anti-aircraft battalion, a sapper battalion, communications battalion and other units.²¹ Nevertheless, the growth of the other combat arms failed to impinge upon the infantry's role as the centrepiece of the combined-arms battle. As Tukhachevskii, one of the Red Army's more zealous mechanisation advocates, wrote in 1931: 'tanks only support the infantry in battle, but do not replace it'.²²

The Red Army's mounted arm also changed considerably during these years and, like the infantry, became 'heavier' in terms of firepower. By 1936 a cavalry division contained four cavalry regiments, a mechanised regiment, and artillery regiment, and smaller specialized units. The infusion of modern technology had the effect of reducing the percentage of actual horse soldiers in cavalry units from 80% at the end of the 1920s to 60% in 1938. However, in contrast to the cavalry's precipitous decline in the armies of the other industrialised nations, the absolute numbers of cavalry actually increased within the Red Army in the 1930s. Thus the number of cavalry formations grew from 14 divisions and seven brigades in 1929 to 32 divisions and two brigades by 1938, while the number of cavalry corps (two-three divisions) increased from four to seven.²³

²⁰ Tiushkevich, p. 203.

²¹ Zakharov, 50 Let, p. 200.

²² Tukhachevskii, II. 175.

²³ Tiushkevich, p. 199.

While the retention of a large cavalry arms may have been justified by the army's earlier low level of mobility, by the mid-1930s this reason no longer sufficed. That a large cavalry establishment lingered on so long within the Red Army was primarily due to the influence of two men, Voroshilov and Budennyi, who had been associated with the mounted arm since their service together in the First Cavalry Army in 1919-20. Voroshilov's military ignorance and resistance to change were well known, while Budennyi continued to propagate the virtues of cavalry from his post as RKKA Cavalry Inspector, where he denounced as 'wrecking' those attempts to limit its employment.²⁴

The Red Army's artillery arm benefited enormously from the flow of new weapons and was almost completely overhauled during the 1930s. Among the new weapons which entered service were the 45-mm anti-tank gun, 76-mm field gun, and the 122-mm howitzer, all pulled by horse transport. Corps artillery received the 122-mm gun and 152-mm howitzer, while the heavy gun park included the 203-mm howitzer--all towed by mechanised transport, which would enable them to keep up with the tanks and motorised troops. There were problems, however, mostly in the number of guns produced. One observer recalled that at one point the enthusiasm for tanks in the Red Army was such that artillery production suffered and had to be made up for during succeeding Five-Year plans. As a result, the number of guns of all types in the army grew from 17,000 in 1934 to nearly 56,000 by the beginning of 1939.²⁵

This massive influx of weapons naturally had an effect on the organisation and distribution of the Red Army's artillery park, which was fortunate to have the competent N.N. Voronov as Chief of Artillery from 1937. Voronov was able to at least partially offset the baleful influence of G.I. Kulik, who from the same year headed the

²⁴ S. Budennyi, 'Konbitsa v Sovremennoi Voine' [Cavalry in Modern War], V&R (1930), no. 6, p. 23.

²⁵ Zhukov, I. 224.

Artillery Directorate. The Soviet artillery park during the 1930s was divided into troop and reserve artillery, with the former receiving the lion's share of the guns. Thus a rifle division was reinforced with an anti-aircraft battalion and its organic artillery regiment was increased in size from three to four battalions. Rifle corps were supplied with an extra artillery regiment and an anti-aircraft battalion. The High Command Artillery Reserve (ARGK), on the other hand, would parcel out the forces at its disposal to strengthen the offensive power of those formations carrying out important tactical and operational missions. By 1938 this force had grown to a strength of 24 artillery regiments and a number of heavy-calibre battalions, from a mere four regiments in 1929.²⁶

No single weapon was more important in transforming the Red Army into a modern force than the tank. Prior to 1927 the Soviet tank park consisted almost entirely of foreign models and captured holdovers from the Civil War. Following the appearance of the T-18 light tank that year, new models succeeded each other in a bewildering array of types throughout the first two Five-Year plans. Among these were the T-19, T-20, T-26, BT-2, BT-5, BT-7, BT-8, BT-1S and T-46-5 light tanks; the T-17, T-23, and T-27 tankettes; the T-37 and T-38 amphibious models; the T-24, T-28 and T-29 medium tanks, and the heavy T-35. The Soviets quickly surpassed their Western counterparts in the sheer number and variety of armoured vehicles, and by 1937 the Red Army's tank park was the largest in the world, numbering some 15,000 vehicles, of which nearly 12,000 were light T-26 and BT models.²⁷ However, the haste with which this force had been assembled was evident in the high proportion of light tanks and tankettes, many of the latter of which were little more than armoured machine gun platforms. All of these models lacked adequate armour protection

²⁶ Tiushkevich, p. 199.

²⁷ Zakharov, *50 Let*, p. 202; P.A. Rotmistrov, *Vremia i Tanki* [Time and Tanks] (Moscow, 1972), p. 46.

and, with the exception of the T-28 and T-35, were too lightly armed.²⁸ At this point the Soviets began to cut back the production of light tanks and concentrated instead on designing a new generation of medium and heavy tanks, which began to appear in significant numbers only in 1940.

The spectacular growth in the number of tanks engendered equally important changes in their organisational structure. This was the province of the Motorisation and Mechanisation Directorate, established in 1929, and its leading lights, I.A. Khalepskii and K.B. Kalinovskii. The directorate divided all armoured and motorised troops during this period into three types: armoured and mechanised battalions and mechanised regiments, as organic components of infantry and cavalry formations; tank battalions, regiments and brigades, as part of the High Command Tank Reserve (TRGK), which, like its artillery counterpart, was to reinforce offensive operations along the most important axes. Finally, there were the mechanised brigades and corps, which were to carry out operational missions in conjunction with the other combat arms.²⁹ The directorate also set up an experimental mechanised regiment in 1929, which was expanded into a brigade in 1930. In the autumn of 1932 two mechanised corps were formed, followed by two more in early 1934. Each corps, according to a 1935 organisational scheme, was to consist of two mechanised brigades, a rifle-machine gun brigade, a tank reconnaissance battalion, and a communications battalion,--in all 8,965 men, 463 medium tanks and tankettes, 1,444 automobiles, plus supporting artillery.³⁰ In strictly organisational terms, this move put the Red Army well ahead of the Germans, who did not establish their first three tank

²⁸ Both the T-28 and T-35 mounted a 76.2-mm gun. The latter was also armed with two 45-mm guns and had a maximum armor protection of 30 mm. See V.D. Mostovenko, Tanki [Tanks], 2nd ed. (Moscow, 1958), pp. 96-98.

²⁹ N.G. Andronikov, et al, Bronetankovye i Mekhanizirovannye Voiska Sovetskoi Armii [The Soviet Army's Armored and Mechanised Forces] (Moscow, 1958), pp. 43-44.

³⁰ A. Ryzhakov, 'K Voprosu o Stroitel'stve Bronetankovykh Voisk Krasnoi Armii v 30-e Gody' [On the Problem of Building the Red Army's Armoured Forces in the '30s], V-IZh (1968), no. 8, p. 108.

divisions until in 1935.

After 1934, however, no new mechanised corps were created, due chiefly to the opposition of Voroshilov, who considered 'far-fetched' the whole idea of large armoured formations.³¹ The Red Army did continue to form other, smaller units, and by 1936 had, aside from the mechanised corps, six independent mechanised brigades, six independent tank regiments, 15 mechanised regiments as organic parts of cavalry divisions, and 83 tank battalions and companies as organic components of rifle divisions.³² However, the practice of distributing armoured units within existing units for infantry support did not prevent some Soviet theorists from speculating on the creation of armoured armies. Among these was Tukhachevskii, who allowed that future mechanised armies might someday be employed to carry out 'independent operations'.³³ But Tukhachevskii would not live to see this and the Soviet tank park would undergo several major organisational changes prior to the formation of the first tank army in 1942.

The Red Army's airborne forces, even more so than the armoured troops, were indebted to the country's industrialisation program for their rapid development. The Soviets had also carried out a number of small airborne landings in the struggle against Central Asian insurgents in the late 1920s, although the numbers involved were militarily insignificant. Experiments continued in peacetime, and in 1931 a small parachute unit was formed in the Leningrad Military District, a move which was successful enough to warrant the creation of similar units elsewhere. In 1933 the first 'special designation brigade' was formed, consisting of a parachute battalion, an artillery battalion, and three squadrons of aircraft for transporting

³¹ A. Iovlev, 'Tekhnicheskoe Perevooruzhenie Krasnoi Armii v Gody Pervoi Piatiletki' [The Red Army's Technical Rearmament During the First Five-Year Plan], V-IZh (1964), no. 12, p. 11.

³² Zakharov, 50 Let, p. 202.

³³ Tukhachevskii, II. 210. See also S.N. Krasil'nikov, Organizatsiia Krupnykh Obshchevoiskovykh Soedinenii [The Organisation of Large Combined-Arms Formations] (Moscow, 1933), pp. 311-12.

troops and equipment.³⁴ Two similar brigades were established in 1934-36, and airborne and parachute troops played a prominent role in several of the larger military maneuvers of 1935-36. In the 1935 Kiev Military District maneuvers 1,200 paratroopers were dropped, followed by a further 2,500 men, plus equipment, landed by plane.³⁵ Similar jumps made the following year in the Belorussian Military District maneuver, caused one western observer to praise them as being 'well ahead of their time'.³⁶

These years also saw the creation of an entirely new service--the air defence forces (PVO), which from 1927 had existed only as a section of the RKKA Staff. The PVO was raised to the status of an RKKA directorate, which became responsible for the air defence of the entire country and the coordination of related civil defence measures. In 1934 Kamenev, the former commander-in-chief, became head of the service, and he was succeeded upon his death two years later by A.I. Sediakin. The PVO was outfitted with such new weapons as the 76.2-mm anti-aircraft gun and other, smaller ground-based weapons. The Soviets also conducted their first experiments with radar during these years. By 1935 29 fighter squadrons were available for air defence purposes, although these remained under the operational control of the military district air force chiefs. In organisational terms, the PVO grew from a collection of anti-aircraft battalions and regiments, to include brigades and divisions. In 1937 the first PVO corps were created to defend such major cities as Moscow, Leningrad and Baku, and included anti-aircraft divisions, searchlight, early-warning, barrage balloon and machine gun regiments.³⁷

The air force, under the stewardship of P.I. Baranov and Ia.I.

³⁴ V. Kostylev, 'Stanovlenie i Razvitie Vozdushno-Desantnykh Voisk' [The Making and Development of the Airborne-Landing Troops], V-IZh (1975), no. 9, pp. 80-81.

³⁵ I.I. Lisov, Sovetskie Vozdushno-Desantnye Voiska [The Soviet Airborne-Landing Troops] (Moscow, 1967), pp. 19-20.

³⁶ G. Martel, The Russian Outlook (London, 1947), p. 21.

³⁷ P.F. Batitskii, ed., Voiska Protivovozdushnoi Oborony Strany [The National Air Defence Forces] (Moscow, 1968), p. 46.

Alksnis, was completely remade during the 1930s. New aircraft such as the I-5, I-15, I-16 and I-53 fighters, the TB-1, TB-3, DB-3 and SB-3 heavy and medium bombers entered service and transformed, at least quantitatively, the USSR into a major air power, with a force of 10,000 combat aircraft by the end of 1937.³⁸ Unlike the armoured forces, however, the trend here was towards a heavier force. Whereas in 1929 reconnaissance aircraft had accounted for a staggering 82% of all combat aircraft, by 1935 bomber and assault aviation made up 51% of combat planes, and reconnaissance vehicles a mere 19%.³⁹ This growth was reflected in organisational changes as well. Assault, fighter and light bomber aviation was organised into both mixed and homogenous air divisions, and in 1933 all long-range (heavy) bombers were grouped into corps, each consisting of three brigades. In 1936 several heavy-bomber brigades were consolidated to form a 'special designation army' (AON), which was subordinated directly to the high command for carrying out independent operational-strategic missions.

The appearance of the heavy bomber naturally gave rise to discussions as to the air force's chief mission; ground support, or strategic bombing operations against political and economic targets. Soviet ideas at this time were sharply at odds with the more extreme 'air power' theories then in vogue in the West, which saw the bomber playing a decisive role in a future war, through terror bombing and strikes against the enemy's war industry. Most representative were the views of A.N. Lapchinskii, the Red Army's chief air theorist during this period. Lapchinskii stressed the air force's role in ensuring the success of ground operations through its reconnaissance functions and strikes against ground and air targets in the enemy's tactical and operational zones. Lapchinskii, although he supported the idea of independent air operations against military targets deep in the enemy rear, dismissed the notion that air power alone could

³⁸ P. Avdeenko, 'Sovetskoe Samoletostroenie v Gody Predvoennykh Piatiletok (1929-1940 gg.)' [Soviet Aircraft Construction During the Prewar Five-Year Plans (1929-1940)], *V-IZh* (1974), no. 7, p. 86.

³⁹ Pospelov, I. 93; Grechko, *Istoriia*, I. 270.

win a war.⁴⁰

Stalin himself put to rest any idea of an independent role for the air force, when he declared in 1937 that 'He who thinks that one can win a war by powerful aviation alone, is mistaken'.⁴¹ The early evidence of the Spanish Civil War bore Stalin out and, like the other great land powers, Germany and France, the Soviet Union would also relegate its air force to an almost exclusively ground support role.

The Soviet navy enjoyed a potentially more independent status than its air counterpart, but it also played a very secondary role to the ground forces during this period. Among the major problems the navy faced was a shortage of bases, particularly in the northwest, where the post-revolutionary independence of Finland and the Baltic States had deprived it of its forward positions and confined the Baltic Fleet to the eastern end of the Gulf of Finland, from which it could be easily blockaded. The Black Sea Fleet's situation was only marginally better, and in the Far East the coastline was open to a renewed Japanese attack. This gloomy picture was made worse by the pre-1933 prediction that Great Britain was the most likely future maritime enemy. This meant dealing with the world's strongest fleet, which was capable of striking with virtual impunity anywhere along the Soviet coast. The Soviets concluded that any attempt to build a large surface fleet and attempt to take on the British in their native element would be worse than useless, and that such a diversion of resources would only derail ongoing efforts to construct an effective interim defence. The Soviets thus rejected the idea of a large surface fleet built around capital ships in favor of a smaller and less expensive shore defence force.

This program was partially realized during these years, although visible improvements came about more slowly, due to the longer construction schedules involved. Submarine construction was particu-

⁴⁰ A.N. Lapchinskii, Bombardirovochnaia Aviatsiia [Bomber Aviation] (Moscow, 1937), pp. 42-43.

⁴¹ Quoted in I.S. Prochko, Artilleriia--Boq Voiny [Artillery--the God of War] (Moscow, 1946), p. 4.

larly pushed as a quick means of building a relatively inexpensive defensive force capable of inflicting disproportionate damage on a stronger enemy. The Soviets managed to build only six modern submarines during the first Five-Year Plan, but 137 during the second, of which 85 were of the large or medium type.⁴² Shore-based aviation also grew at an impressive rate, and by 1937 the navy possessed 1,215 combat aircraft, divided almost equally between bombers, fighters and reconnaissance aircraft.⁴³ This and similar growth in other areas enabled the Soviets to establish the Pacific Fleet in 1935 and to upgrade the status of the Northern Flotilla to that of a fleet two years later. By the end of this period the Soviet navy was on the verge of administrative independence from the ground forces, although the gathering purge, which hit the navy especially hard, would soon render such considerations academic.

The first half of the 1930s saw the Red Army transformed from an overwhelmingly infantry-cavalry force into a relatively modern army equal to those of the other major powers. The greater numbers of tanks, motorised troops, aircraft and artillery, and their coalescence into operationally-significant divisions and corps, inevitably had an influence on the development of the army's military theory. Tukhachevskii had foreseen this as early as 1930, when writing of the army's 'new proportions' of modern weaponry, which, he asserted, 'will call forth new forms of operational art'.⁴⁴

C. Strategy and Tactics

However, before examining the period's operational developments, a lengthy digression into the realms of strategy and tactics is called for. For it is only by understanding what was taking place

⁴² V. Dmitriev, 'Stroitel'stvo Sovetskogo Podvodnogo Flota v Mezkhvoennyi Period' [The Construction of the Soviet Submarine Fleet During the Interwar Period], *V-IZh* (1974), no. 10, p. 85.

⁴³ Tiushkevich, p. 206.

⁴⁴ TsGASA, fond 7, opis' 1, delo 170, p. 12.

on either 'side' of operational art that one can appreciate the latter more fully.

Surprisingly, for all of the changes which were taking place in the Red Army's weapons and equipment park, the basic assumptions underlying Soviet military strategy changed relatively little during these years. This is because questions of strategy, being more closely tied to political and economic considerations, are generally less subject to the influence of new technology than the subordinate fields of operational art and tactics. What effect there was would continue to be secondary to such realities as the USSR's ongoing ideological confrontation with most of the rest of the world and its resulting political isolation. These and other factors combined to ensure that the basic premises of Soviet military strategy would continue to resemble closely the conclusions already reached during the previous decade.

As before, the Soviets viewed a future war as the inevitable clash of two irreconcilable social systems, the capitalist and socialist, in which each side would strive to overthrow the other's social order and replace it with its own. A high-stakes conflict of this sort left no room for compromise and would be waged in the most decisive manner possible.⁴⁵ It was widely believed that this would be a war, not of nations, but of social classes. The USSR, which was admittedly far weaker than its likely opponents, would thus enjoy the advantage, it was said, of working class support within the capitalist camp, which one author described as a 'landing force' in the enemy's rear. In the same vein, the Soviets continued to count on the support of the inhabitants of the European colonial holdings and other dependencies.⁴⁶ These factors would force the capitalist nations to withdraw troops from the anti-Soviet front to put down internal uprisings, thus realizing the Bolsheviks' slogan of changing

⁴⁵ S.M. Belitskii, Voina [War] (Moscow, 1931), p. 11.

⁴⁶ L.S. Amiragov, 'O Kharaktere Budushchei Voyny' [On the Character of a Future War], V&R (1934), Sept.-Oct., pp. 12-13.

the 'imperialist' war into a civil war. Finally, a future war would pit the USSR against a coalition of its immediate western neighbors, supported materially by such larger capitalist powers as Britain, France and Japan.⁴⁷

The conclusions reached by Soviet theoreticians during the strategic debates of the 1920s, regarding the military conduct of a future war, retained, for the most part, their validity well into the next decade and would serve as the basis for planning at the operational level. It will be recalled that these debates revolved chiefly around the question of a future war's duration; whether it would be a struggle of mass armies, or of smaller, highly-mechanised forces; should the Red Army pursue an offensive strategy of 'destruction', or an essentially defensive one of 'attrition'; and the relative place of maneuver and positional warfare. The preponderance of opinion came to view a future war as a lengthy and exhaustive struggle, waged by mass armies, outfitted with the latest technological innovations. The Red Army would pursue an offensive strategy, geared to decisively defeating the chief members of the capitalist coalition as quickly as possible, although a defensive posture on secondary fronts was not ruled out. Finally, while the army leadership preferred a war of maneuver, it did not exclude positional methods, particularly along the less decisive axes.

These basic tenets were reaffirmed by a number of theorists during the 1930s. Among these was S.M. Belitskii, who declared that a future war would become an 'extended and cruel contest', due to its coalition character. He also predicted that a future war would be a conflict of mass armies, in which technology would aid, but not replace, the national army.⁴⁸ This view was supported by Tukhachevskii, who remained a zealous advocate of the mass army, coupled with a high level of mechanisation, and who was outspoken in his contempt

⁴⁷ Belitskii, pp. 4, 12; R. Tsiffer, 'Kharakteristika Predstoiashchei Voiny' [A Description of the Coming War], V&R (1931), nos. 10-11, p. 5.

⁴⁸ Belitskii, pp. 11-12, 61.

for Western theories which called for the creation of small, highly-mechanised professional armies.⁴⁹ Tukhachevskii also took the lead in reiterating the Red Army's commitment to an offensive strategy, which had been the point of greatest contention during the 1920s. As before, his views were expressed in *ad hominem* attacks on the theories of his old rival, Svechin, who was derided for his alleged 'pacifism' and willingness to accept capitalism's military superiority. In 1930 Tukhachevskii accused Svechin of renouncing the offensive, which another author praised as the 'single expedient form of struggle' in an era of revolutionary wars.⁵⁰ Finally, while the Soviets continued to prefer a war of maneuver over positional forms, they had come increasingly resigned to the fact that the growing power of defensive weapons had made periods of positional warfare more likely in the future.⁵¹

The interplay of these and other factors in the Red Army's strategic calculations is most clearly illustrated in an exchange of internal documents between Svechin and Chief of Staff Shaposhnikov in early 1930. The dialogue between the two former tsarist officers and imperial academy graduates as to the possible contours of a future war and the army's proper strategy provide a fascinating insight into the thinking of the army's best minds.

Svechin opened the discussion with a detailed report to war commissar Voroshilov in early March. Svechin outlined a future war against the USSR as a coalition affair, led by Britain and France, in which Poland and Romania would bear the brunt of the fighting as the coalition's cat's paw in the West. To the north, Latvia, Estonia and Finland would maintain an 'armed neutrality', in order to tie down Soviet forces along their borders. The Soviet Union would enter such a war much the weaker party against opponents who possessed signifi-

⁴⁹ Tukhachevskii, II. 152-53.

⁵⁰ *Ibid*, pp. 134, 137-38; B. Burlak, 'Nastuplenie kak Sil'naia Forma Reveoliutsionnoi Voiny' [The Offensive as a Powerful Form of Revolutionary War], *V&R* (1935), Sept.-Oct., p. 40.

⁵¹ Belitskii, p. 58; Tukhachevskii, II. 247.

cant technical advantages over the Red Army and who could mobilize their forces more quickly. He sharply criticized Tukhachevskii and Triandafillov for overselling the technological benefits of the army's reconstruction program and predicted that the armed forces would not achieve a technical parity with its likely enemies for another 15 years. Nor could the USSR count on significant support from working class uprisings within the enemy camp, as these could be easily suppressed.⁵²

Svechin predicted that the capitalist coalition would make its main effort in the south, along the Black Sea coast, with the aim of creating a continuous front from the Caspian Sea to the Pripiat' Marshes. The British, according to this scenario, would land in the Trans-Caucasus, with the object of seizing the oil centres of Baku and Grozny. The French would land in the Crimea and seize the Donets Basin and the lower Dnieper River area, while Poland and Romania would join in the attack along their own frontiers. Svechin predicted that the achievement of these objectives would put the enemy in possession of the USSR's chief industrial and extractive areas and render a subsequent advance on Moscow relatively easy, or even unnecessary.⁵³

Svechin proposed a political-military counter-strategy to take advantage of the coalition's lack of internal unity, in order to prevent the union of the coalition armies and the formation of a continuous front along the USSR's southern periphery. The Red Army, to achieve this, must remain on the defensive along most of the front, while directing its initial offensive efforts at Romania, which he correctly identified as the coalition's 'weakest link'. Svechin rather optimistically calculated that the Romanians could be defeated in a quick, two-week campaign, which would drive a wedge in

⁵² A.A. Svechin, Budushchaia Voina i Nashi Voennye Zadachi [A Future War and Our Military Tasks], [Moscow], 8 March 1930, pp. 1, 3-4. Considerations of secrecy make it impossible at this time to cite this archival document in the usual manner.

⁵³ Ibid, pp. 3, 6-7.

the enemy front and isolate the Polish forces to the north from their allies along the Black Sea coast. He warned that at all costs the Red Army should refrain from making its first major offensive against Poland, either in Galicia or towards Warsaw. Svechin believed that such an attack would only involve the army in an extended and indecisive campaign, even as coalition forces linked up in the south, and might even bring Germany into the war on the allied side. Likewise, he denounced any major effort in the Baltic as a 'false step', which would only take away forces from the southern front.⁵⁴

Shaposhnikov, in his reply, was quick to agree with Svechin as to the coalition nature of a future war and its likely composition. Nor did he dispute the notion that the enemy would make its major effort along the country's Black Sea coast, although he disagreed as to the scale of the fighting. Shaposhnikov believed that the British and French fleets would probably attack the USSR's southern and other ports, although he considered it unlikely that they would undertake any large-scale land operations in the interior.⁵⁵ Rather, the main point of contention between the two lay in Shaposhnikov's preference for the strategy of destruction, which he defined in practical terms as 'beginning the war with the defeat of the strongest and most dangerous enemy' and avoiding secondary distractions. He contrasted this to Svechin's familiar strategy of attrition, which he characterised as the 'strategy of limited goals, the strategy of circuitous routes to the objective'.⁵⁶

In practical terms this meant launching the initial attack against Poland, which Shaposhnikov identified as the coalition's strongest direct partner, and delaying the attack against Romania until the latter's defeat. Neither would Romania's defeat be the

⁵⁴ *Ibid*, pp. 8-10, 12.

⁵⁵ B. Shaposhnikov, *Otvet na Zapisku A. Svechina 'Budushchaia Voina i Nashi Voennye Zadachi'* [A Reply to A. Svechin's Note 'A Future War and Our Military Tasks'], [Moscow], 28 March 1930, pp. 3, 6, 8, 10. Considerations of secrecy make it impossible at this time to cite this archival document in the usual manner.

⁵⁶ *Ibid*, pp. 14, 29-30.

simple task which Svechin imagined, and Shaposhnikov calculated that the Red Army could reach Bucharest only on the 40th day following its complete concentration along the Dniester. Such a move, if undertaken first, would also be threatened along its right flank by a major Polish attack from Galicia. Launching the first attack against the Poles would also be a major undertaking and would require 85-95 divisions north of the Pripiat Marshes, as well as another 40 divisions to the south, including those defending the Romanian frontier. An attack of this magnitude would also involve a secondary effort through the Baltic States to turn the Polish flank. Shaposhnikov calculated that an advance from the Polish border to the middle Vistula would take 50 days. This would not include the initial mobilisation and deployment period, meaning that the decisive operations would take place sometime during the war's third month.⁵⁷

While both men's analyses contained much that was intelligent and insightful, too often their judgement was clouded by wishful thinking and ideological prejudice. The former was particularly true of Svechin's rosy predictions of a swift victory over Romania, while Shaposhnikov could not resist the temptation to fall back on political cliches to support his argument, knowing that Svechin was particularly vulnerable on that score.⁵⁸ Before too long, however, such interesting speculation would become superfluous and the vague spectre of an enemy coalition would be replaced by a new and very real enemy--Nazi Germany.

One of the most interesting aspects of the Soviet strategic debate during these years was the question of the so-called 'beginning period of the war' (*nachal'nyi period voiny*) and the problems peculiar to it. One of the first to raise the question was Svechin, who in 1927 had written of the 'pre-mobilisation' period and the measures needed to shield the armed forces' concentration and deploy-

⁵⁷ *Ibid*, pp. 7, 14, 25, 28-29.

⁵⁸ *Ibid*, pp. 5, 33.

ment upon the outbreak of war.⁵⁹ A number of articles on this subject followed at the end of the 1920s, although they were often too narrowly focused on the role of air power, or ignored the influence of new military technology altogether.⁶⁰

By the early 1930s, however, developments within the Red Army and abroad were leading many theorists to reexamine the problem in the light of recent advances in military technology. Whereas in the past, military operations had developed slowly along a relatively shallow front of strategic efforts, the appearance of such new weapons as long-range bomber aviation and mechanised forces meant that henceforth 'From the very beginning combat activities will take on a deep and spatial character', as one Soviet author described the situation.⁶¹ The vastly increased importance of the time factor, combined with the deep strike range of modern weapons, had obvious consequences for the mobilisation and deployment of a nation's armed forces. Military planners could now no longer assume that their country's mobilisation and concentration of its armies on the frontier would be allowed to proceed unhindered, as had been the case in 1914. The dangers and opportunities inherent in this new situation meant that the Red Army's efforts would be increasingly focused on what one theorist called 'the right to deploy first', in which each side would actively seek to disrupt his opponent's military preparations at the beginning of a war, in order to gain an advantage in the opening operations.⁶²

However, despite the indisputable advantage of striking first,

⁵⁹ Svechin, *Strategiia*, pp. 135, 138.

⁶⁰ See G. Sokolov, 'Sovremennaia Zavesa i Voprosy Strategicheskogo Prikrytiia' [The Modern Screen and Questions of Strategic Cover], *V&R* (1928), no. 4, pp. 15-21; A. Lapchinskii, 'Deistviia Aviatsii v Nachal'nom Periode Voyny' [Air Activities in the Beginning Period of a War], *V&R* (1929), no. 6, pp. 55-66; Ia. Alksnis, 'Nachal'nyi Period Voyny [The Beginning Period of a War], *V&R* (1929), no. 9, pp. 3-22, no. 10, pp. 3-15.

⁶¹ E. Shilovskii, 'Nachal'nyi Period Voyny' [The Beginning Period of a War], *V&R* (1933), Sept.-Oct., p. 11.

⁶² R. Eideman, 'K Voprosu o Kharaktere Nachal'nogo Perioda Voyny' [On the Question of the Beginning Period of a War], *V&R* (1931), no. 8, p. 12.

it was understood that no state can afford to maintain its armed forces in a full state of readiness in peacetime without provoking its neighbors or risking economic disaster. The problem for the Red Army and its foreign counterparts was to devise the most effective means of disrupting the enemy's mobilisation and deployment at the beginning of a war, using a minimal initial amount of force to achieve maximum results. The Soviets' preferred instrument for carrying out this mission was the aptly named 'invasion army' (*armia vtorzheniia*), among other appellations. The invasion army, in order to strike quickly and deeply into enemy territory, would be maintained at nearly full strength and liberally reinforced with mechanised units, aircraft and cavalry. The army constituted, in effect, the first echelon of the country's mobilisation efforts, in which capacity it was charged with not only disrupting the enemy's deployment along the frontier, but also of facilitating the eventual deployment of its own second and third strategic echelons inside enemy territory.⁶³ The latter, which greatly exceeded the first echelon in strength, would then quickly advance to support it upon the completion of their concentration.⁶⁴

It was generally agreed that a future war would begin with air strikes in the enemy's strategic and operational rear, against his political and economic centres and his forces already in the field. These strikes, involving as many as 1,000-1,500 aircraft, and carried out to a depth of 400-600 kilometers, would include among their military objectives rail junctions, large troop concentrations and supply depots directly connected to the enemy's ongoing deployment efforts. Other targets, included the enemy's war industry, mines, oil fields and seaports. The attacker would also seek out the enemy's political and administrative centres for a terror bombing

⁶³ V. Melikov, Problema Strategicheskogo Razvertyvaniia po Opytu Mirovoi i Grazhdanskoi Voyny [The Problem of Strategic Deployment According the Experience of the World and Civil Wars] (Moscow, 1935), I. 597, 599.

⁶⁴ S.M. Belitskii, Strategicheskie Rezervy [Strategic Reserves] (Moscow, 1930), p. 255.

campaign, which would include among its weapons not only conventional ordnance, but incendiary and chemical weapons as well.⁶⁵

The invasion army, simultaneous with the start of the air campaign, would begin its advance to the frontier. The army's composition and actions were outlined by S.A. Mezheninov, a former tsarist captain and 1917 graduate of the imperial General Staff Academy, who served as deputy chief of the RKKA Staff/General Staff from 1933 to 1937. Mezheninov calculated the invasion army's strength at a mere one or two rifle divisions, backed by a cavalry corps, a mechanised corps, two or three anti-aircraft battalions, plus a battalion each of motorised sappers and chemical troops and, in certain cases, bridging units. The army's advance would be covered by an air corps consisting of light bomber, assault and fighter brigades. The preponderance of mobile arms and engineering troops clearly indicated that the army was intended to launch little more than deep 'spoiling attacks' against the enemy's covering forces and his frontier obstacles. The army would advance into enemy territory in a series of incremental leaps, destroying the enemy's border troops and airfields and disorganising his communications and control means and, in general, disrupting the defender's efforts to hinder the Red Army's deployment. The mobile forces, having accomplished their mission, would then fall back on their own infantry and conduct a defensive battle until the arrival of the main forces, as represented by the second echelon's shock armies.⁶⁶

The RKKA Staff had earlier calculated that an invasion of this size might penetrate up to 200-300 kilometers into enemy territory along a future western front. However, even a success of this magnitude could not be maintained for any great length of time

⁶⁵ G. Isserson, Osnovy Glubokoi Operatsii [Fundamentals of the Deep Operation], [Moscow], 1933, pp. 54-56. Considerations of secrecy make it impossible at this time to cite this archival document in the usual manner. See also TsGASA, fond 31983, opis' 2, delo 18, pp. 145, 126-25.

⁶⁶ S.A. Mezheninov, Razrabotka o Nachal'nom Periode Voiny [A Sketch of the War's Beginning Period], [Moscow], 8 July 1934, pp. 170-71. Considerations of secrecy make it impossible at this time to cite this archival document in the usual manner.

without sizeable reinforcements. It was elsewhere admitted that the invasion could, at best, only create a 'series of crises' for the defender's force, and that decisive results would have to await the arrival of the attacker's main forces.⁶⁷

As the Red Army's most gifted strategist, Tukhachevskii's views on the nature and conduct of a future war's opening phase are particularly important. These were revealed most clearly in his writings and conversations with fellow theorists. According to the latter, by the end of 1936 Tukhachevskii was firmly convinced of Nazi Germany's aggressive intentions and urged that it be considered the main opponent in future exercises. He was equally certain that the old formula of a country's unhindered mobilisation and deployment was a thing of the past and that a future war would begin with surprise attacks by air, sea and ground forces, as both sides seek to disrupt the unfolding of the other's initial military preparations. This was particularly true of the air force, which, he believed, was capable of rendering a 250-kilometer border zone 'off limits' to the enemy's mobilisation efforts and force him to deploy deep in his own rear, while the attacker would be left free to deploy along the border. The air attacks would be accompanied by large-scale airborne landings to destroy rail lines, bridges and isolated enemy garrisons within the 250-kilometer zone. Tukhachevskii, while his intentions were overwhelmingly offensive, did warn, however, of similar enemy attempts to disrupt the Red Army's deployment by launching a preemptive strike of its own.⁶⁸

Tukhachevskii advised that ground operations would probably unfold in a series of meeting engagements, particularly if both sides pursue an offensive strategy, and, in general, maneuver would predominate over positional forms. However, he did not exclude defensive

⁶⁷ TsGASA, fond 31983, opis' 2, delo 18, p. 144.

⁶⁸ Isserson, 'Zapiski', p. 76; Tukhachevskii, II. 213-13, 217-18. The latter work, 'The Character of Frontier Operations', was not published during Tukhachevskii's lifetime, although its contents were doubtlessly known to his associates.

operations and periods of positional warfare along the front's less-important sectors. The main ground force attack would be spearheaded by the 'forward army' (*peredovaia armia*), generously equipped with mechanised units, cavalry and motorised infantry. This army, deployed in peacetime near the border, would take advantage of the enemy's confusion in the frontier zone to invade the enemy's territory and hold it for the deployment of friendly forces advancing in succeeding echelons. However, Tukhachevskii warned that, as opposed to the past, future border operations might drag on for weeks. In such cases, the presence of 'deep operational reserves' to maintain the attack would prove decisive.⁶⁹

Unfortunately for the Red Army, Tukhachevskii had only a limited opportunity to test his theories at a war game conducted by the General Staff in early 1936. The strategic setting for the game envisioned a German-Polish invasion of the USSR, involving a mixed force of 80 divisions, deployed between the Pripiat' Marshes and the Dvina River. I.P. Uborevich, as commander of the Belorussian Military District, led the Soviet force, while Tukhachevskii commanded the enemy army. However, the latter's suggestion that the German-Polish forces preempt the Soviets' efforts to concentrate troops along the border with a surprise attack was brusquely rejected by Marshal Egorov, who also dismissed Tukhachevskii's suggestion that the enemy armies enjoy an initial superiority of forces. In fact, according to the scenario laid down by Egorov's General Staff apparatus, it was the Red Army which would complete its concentration and deployment first and enter the fighting with an equality of forces. Given these absurd restrictions, it is not surprising that the game ended in a series of frontal collisions along the frontier and failed to yield a decisive result, and the Red Army was deprived of a valuable lesson for the future.⁷⁰

Given the highly offensive nature of the Soviet approach to

⁶⁹ Isserson, 'Zapiski', pp. 76-78; Tukhachevskii, II. 218, 220.

⁷⁰ Isserson, 'Zapiski', pp. 72-74; Zakharov, *General'nyi*, p. 105.

war, the fact that defensive considerations played such a small part in the formulation of strategy should come as no surprise. While it was true that the invasion army could also serve as a 'cover army' (*armia prikrityiia*) in the event of an enemy attack, the bias towards the offensive remained dominant.⁷¹ Defensive arrangements, however, were more in evidence in the 12 'fortified areas' constructed along the USSR's western frontier (Karelia, Kingisepp, Pskov, Polotsk, Minsk, Mozyr', Korosten', Novograd-Volynskii, Letichev, Mogilev-Iampol'skii, Rybnitsa, Tiraspol') and in the interior (Kiev) between 1929 and 1938. These areas varied in length from 50 to 140 kilometers and approximately 25 kilometers in depth, while the flanks were usually anchored on some natural obstacle. However, in many cases these areas were too lightly-armed, particularly in terms of anti-tank defence.⁷²

Unfortunately for the Soviets, much of the creative work regarding the war's beginning ultimately came to naught and the Red Army would shortly become the victim of the greatest surprise attack in military history. G.K. Zhukov, who at the beginning of the war served as Chief of the General Staff, later admitted that the majority of the higher military leadership still expected a war to begin in the form of border engagements according to the pattern of 1914, followed by the collision of the sides' main forces. No one, he claimed, believed that it was possible for a fully-mobilised army to launch a full-scale attack of such magnitude.⁷³ That the Red Army high command continued to believe this in spite of the recent evidence of German methods in Poland and the West is indicative of a serious degradation in the quality of the army's strategic thinking following the 1937-38 military purges.

⁷¹ Melikov, Problema, I. 12.

⁷² S.Kh. Aganov, ed., Inzhernye Voiska Sovetskoi Armii, 1918-1945 [The Soviet Army's Engineering Troops, 1918-1945] (Moscow, 1985), pp. 163-65; A.G. Khor'kov, 'Ukreplennye Raiony na Zapadnykh Granitsakh SSSR' [Fortified Regions on the USSR's Western Borders], V-IZh (1987), no. 12, p. 48.

⁷³ Zhukov, I. 340, 354-55, II. 79.

Equally important changes were also taking place from 'below', in the realm of tactics. Here the Red Army faced the daunting task of adapting its tactical doctrine, previously based on infantry and cavalry, to the vastly increased fire and maneuver capabilities of the new weapons then entering service. In this respect, at least, Soviet theoreticians had much in common with their Western counterparts, who were also searching for ways of employing the new technology in order to avoid a repetition of the 1914-18 deadlock. The latter was certainly a possibility, for despite the impressive advances in offensive weaponry since 1918, the defence still retained a number of significant advantages vis a vis the attacker. This prospect was particularly distasteful to the Red Army, whose entire political-military ethos demanded decisive offensive actions.

The continued strength of modern defensive arrangements made it imperative that the problem of breaking through the enemy's tactical defence would first have to be solved. For without the disruption of the defender's tactical position there could be no question of the offensive's subsequent development into the enemy's operational and strategic depth. Or, as one author put it, the operation's outcome 'is determined, in the final analysis, by tactical factors'.⁷⁴ Soviet efforts to resolve this dilemma ultimately found expression in the theory of the 'deep battle' (*glubokii boi*), which sought to employ the enhanced offensive qualities of the new military technology to achieve a breakthrough of the enemy's tactical defence and set the stage for the operational exploitation of the success.

One of the earliest efforts in this area was a 1931 memorandum by Triandafillov, which laid the theoretical basis for the new approach in words which would be repeated many times in the years ahead. In his report, Triandafillov stated that the new military technology now made it possible to dispense with the method of 'gnawing through' (*progryzanie*) the enemy's defensive position in favor of a 'simultaneous attack against the enemy throughout the

⁷⁴ G. Isserson, *Evolutsiia Operativnogo Iskusstva* [The Evolution of Operational Art], 2nd ed. (Moscow, 1937), p. 98.

entire depth of his tactical position'.⁷⁵ Equally intriguing, in light of the author's untimely demise, were Triandafillov's notes on the conduct of the deep battle, which were published in an appendix to a posthumous edition of his The Character of Operations of Modern Armies, in 1932. Triandafillov, at the time of his death, had been revising his magnum opus to take into account the army's ongoing technical transformation. From the outline it is evident that he was planning to devote special attention to the tactical problems of coordinating the different combat arms (infantry, armour, artillery, cavalry, aircraft and airborne troops) during the attack.⁷⁶

Triandafillov's pioneering work was taken up by others following his death in the summer of 1931. In early 1932 the Revolutionary Military Council commissioned Chief of Staff Egorov to prepare a report on the army's tactical-operational views in light of its technical reconstruction. The result, 'The RKKA's Tactics and Operational Art at a New Stage', was basically a distillation of Triandafillov's 1931 work and summed up the main theoretical conclusions reached up to that time, and established the general tone for succeeding discussions and works. The report's most important tactical conclusion was that the new military technology, due to its increased range, mobility and destructive power, now

... enables us to strike the enemy simultaneously throughout the entire depth of his position, as opposed to current forms of battle and attack, which may be characterized as the consecutive suppression of successive parts of the battle order. The means are used so as to paralyze the fire of all defensive weapons, regardless of the depth of their deployment, to isolate one enemy unit from another, to disrupt cooperation between them, and to destroy them in detail.⁷⁷

⁷⁵ V.K. Triandafillov, Osnovnye Voprosy Taktiki i Operativnogo Iskusstva v Sviazi s Rekonstruktsiei Armii [Fundamental Problems of Tactics and Operational Art in Connection with the Army's Reconstruction] [Moscow], 1931, TsGASA, fond 37977, opis' 3, delo 368, pp. 968-69.

⁷⁶ V.K. Triandafillov, Kharakter Operatsii Sovremennykh Armii [The Character of Operations of Modern Armies], 2nd ed. (Moscow, 1932), pp. 177, 182, 184, 186-87.

⁷⁷ TsGASA, fond 31983, opis' 2, delo 18, p. 157.

The report was later circulated among the military district commanders and the heads of the various military academies, among others, for their comments and criticisms. It subsequently became the basis for the 'Provisional Instructions for Organising the Deep Battle', which was issued in 1933 and which became the Red Army's first manual on the subject.

The notions of simultaneity and depth in these and other writings are the cornerstone of the Soviet theory of the deep battle and distinguish its conduct from the tactical methods employed during the Great War.⁷⁸ For most of that conflict the method of attack had been consecutive and linear, with the slow-moving infantry having to bludgeon its way through the enemy's multi-layered defensive zone in a series of grinding frontal collisions, which ultimately exhausted the attacker. The little simultaneity that could be achieved was limited to infantry-artillery interaction against the first defensive position, while the depth of the attack was restricted by the range and pace of the two arms' rate of advance. Moreover, the defence could usually bring up reinforcements to the battlefield without interference from the attacker. The appearance of large numbers of tanks, aircraft and other weapons offered an escape from this positional 'dead end' by enabling the attacker to group these arms' activities in such a way that both simultaneity of suppression and depth of attack would be achieved, and the battlefield isolated from the defender's reinforcements. This new-found capability, as one author noted, marked the transition from the old linear tactics to a new, multi-dimensional 'deep tactics' (*glubokaia taktika*).⁷⁹

Of the new weapons, none was judged more important to the deep battle's success than the tank, and its means of employment was to be a source of intense debate for several years. One of the earliest

⁷⁸ See P.V. 'Ispol'zovanie Sredstv Podavleniia v Operatsii Proryva' [Employing Weapons of Suppression in a Breakthrough Operation], *V&R* (1931), no. 10-11, pp. 20-27; S. Ammosov, 'Tanki v Operatsii Proryva' [Tanks in a Breakthrough Operation], *V&R* (1932), no. 5-6, pp. 81-91.

⁷⁹ Isserson, *Evoliutsiia*, p. 132.

references to the tank's emerging role in the deep battle appeared in the 1929 field manual, edited in large part by Triandafillov, in his capacity as chief of the RKKA Staff's operational directorate.

Perhaps most significantly, two of the manual's articles recommended the creation of special tank echelons to carry out the attack.⁸⁰

Triandafillov later advised forming three distinct tank echelons for operating to various depths of the defender's tactical defence zone and against specific targets. These echelons were first divided into 'infantry accompaniment tanks', 'machine gun destruction tanks', and 'artillery destruction tanks', according to their mission. They were subsequently renamed 'direct infantry support' (*neposredstvennaia podderzhka pekhoty*) tanks, or NPP; 'long-range infantry support' (*dal'niaia podderzhka pekhoty*) tanks, or DPP; and, 'long-range' (*dal'nee deistvie*), or DD tanks, although their original designation remained the same.⁸¹

Another question concerned the relative importance of the tank in the deep battle *vis a vis* the other combat arms. Previous Soviet theory had stressed the tank's role as an infantry-support weapon, as when the 1929 field manual stated that the tanks' 'chief task' was 'to clear a path for the advancing infantry by suppressing the enemy's fire resistance and destroying his artificial obstacles'.⁸² As more and more tanks entered service, however, a number of theorists began to view the tank as the prime element in the combined-arms battle and to reduce the deep battle to the armoured attack alone. This dalliance with the more extreme theories of tank warfare did not last long, however, as the weight of opinion in the army remained in favor of a more balanced approach. This was made official at a December 1934 meeting of the Military Council, during which Egorov delivered a report reaffirming the supremacy of the infantry.

⁸⁰ *Polevoi*, pp. 118, 127.

⁸¹ Triandafillov, 2nd ed., pp. 182, 184; TsGASA, fond 37977, opis' 3, delo 368, pp. 969-70.

⁸² *Polevoi*, p. 127.

He also condemned the existing three-stage (NPP, DPP and DD) echelonment of tanks as cumbersome and unjustified, and recommended instead a two-echelon (NPP, DD) grouping. These recommendations were subsequently adopted and formed the basis for the army's new 'Instructions for the Deep Battle', which was issued in March 1935.⁸³

The new theory encountered other, more serious obstacles during these years, which threatened to channel its development in a more restrictive direction. One of the chief impediments was Voroshilov, whose reactionary views have been noted elsewhere. The war commissar maintained that the deep battle was applicable only to conditions of positional warfare, which required breaking through the enemy's static front. This view, however, ignored the theory's relevance to other, more mobile forms of warfare, such as the 'meeting battle' (*vstrechnyi boi*).⁸⁴ Tukhachevskii protested that Voroshilov's attitude was causing a good deal of confusion within the command element and had raised fears that the theory might be renounced altogether. Tukhachevskii's views ultimately prevailed, thanks to the support of such powerful allies as Kamenev, Uborevich and I.E. Iakir, the commander of the Kiev Military District. Voroshilov's formal capitulation on this score came at the same December 1934 meeting of the Military Council, at which he retracted his earlier statements and recognised the deep battle as a 'new form' of military endeavor.⁸⁵

The capstone of these years of effort was the Provisional Field Manual of 1936, which represented the final triumph of the Red Army's more progressive thinkers, many of whom had less than a year to live, and marks the high point of the deep battle's theoretical development in the pre-purge period. The manual, as the army's guiding tactical document, codified several of the deep battle's basic tenets, among the most important of which was that it was above all a combined-arms

⁸³ Zakharov, *General'nyi* pp. 90-91.

⁸⁴ *Ibid*, p. 90.

⁸⁵ Biriuzov, p. 44; G. Isserson, 'Razvitie Teorii Sovetskogo Operativnog Iskusstva v 30-e Gody' [The Development of the Theory of Soviet Operational Art in the '30s], *V-IZh* (1965), no. 1, p. 38; Zakharov, *General'nyi*, p. 91.

effort, using the heightened strike and maneuver qualities of modern weaponry 'to achieve a simultaneous attack against the enemy's combat order throughout the entire depth of his position'.⁸⁶ This applied to both defensive and offensive actions, although the latter was preferred, culminating in the defender's encirclement and destruction. Finally, the manual reaffirmed the infantry's primacy, as all other combat arms were explicitly subordinated to the interests of the former.⁸⁷

The manual divided the deep battle into three categories, according to designation: the meeting battle; the attack against an entrenched defender; and, the defensive battle. These battles, despite their obvious differences, had several factors in common. Among them was the rifle corps, which as the largest tactical unit, constituted the battle's organisational heart, usually as part of a larger operational effort. The corps, aside from its organic forces, might also be reinforced with tanks, artillery and other weapons from the high command's reserve. The manual recommended dividing these forces into separate 'shock' and 'holding' (*skovvyvaiushchaia*) groups in both offensive and defensive situations. Within the shock group are concentrated the greater part of the corp's organic weapons, as well as those allocated from above. The shock group's battle order is arranged to a depth of two to three echelons, which were to augment the first echelon's attack from the depth. Likewise, a breakthrough anywhere along the attack front was to be immediately exploited by units from the follow-on echelons and the reserve.⁸⁸

The holding group, would tie down the defender along secondary sectors and prevent him from concentrating his forces against the main effort. The holding group would generally not receive additional forces for its supporting mission, and might be obliged to attack along a relatively broad front in order to facilitate the massing of

⁸⁶ *Vremennyi*, pp. 10, 16.

⁸⁷ *Ibid*, pp. 9-11, 16.

⁸⁸ *Ibid*, pp. 59-61.

men and weapons along the main sector. However, the holding group's attack cannot be limited to a mere demonstration, and it must carry out its mission to the best of its limited means. As soon as the enemy's defence along the main sector begins to give way, the holding group's attack must merge with the larger effort. Likewise, in a defensive battle, the holding group would try to weaken or halt the enemy attack before it reached the main defensive position. If this fails, the shock group would then launch a counterattack to restore the situation.⁸⁹

Tank battalions, subordinated to the infantry division commanders, made up the bulk of the infantry support tanks. Tanks detailed from the high command reserve might be used to strengthen the infantry attack, or would be formed into a separate long-range tank echelon under the control of the corps commander, or even of his division commanders. The corps commander would also allocate his organic and attached artillery park to special infantry support, cavalry support and long-range tank support groups. In cases where the corps was attacking a fortified area, a special 'destruction artillery' (*artilleriia razrusheniia*) group would be formed. Finally, assault aviation would disrupt the arrival of the enemy's reserves; support the ground attack; attack enemy rail lines and storage depots; disrupt his communications and control; and destroy his aircraft on the ground. Fighter aviation had the task of destroying the enemy's planes, both in the air and on the ground; protecting the ground assault; and, in certain cases, attacking the defender's ground forces. Light-bomber aviation would direct its efforts against enemy troop concentrations, supply bases, communications and control, railways and airfields.⁹⁰

The meeting battle would unfold under conditions in which both sides were advancing towards each other in march formation. For this reason, the commander was advised to organise his forces along the

⁸⁹ *Ibid*, pp. 61-62.

⁹⁰ *Ibid*, pp. 63-68.

line of march with an eye towards their rapid deployment at the start of the battle. To this end, the advancing column would generally consist of reconnaissance units, a vanguard, the main body, and a rear detachment. If possible, it was recommended that cavalry tank and motorised infantry, as well attached artillery, advance in a separate column for ease of deployment.⁹¹

In most cases the meeting battle would begin with air strikes by both sides. These strikes would be directed primarily at the enemy's troops, his artillery park and supply system, through strafing and bombing attacks, and the dropping of 'poisonous substances'. As the enemy approached, the vanguard would deploy against his forward units and engage them. Part of this force would attack the enemy in order to pin down his forward troops, while the vanguard's main body moved against the enemy's flanks, in an effort to destroy the enemy's vanguard before it could fully deploy.⁹²

Should both sides persist in their efforts until the arrival of their columns' main forces, further fighting would develop in the manner already described. In this case the attacker's vanguard would serve as the holding group for the formation's main effort by engaging the enemy in a frontal assault, to divert his attention from the forthcoming attack. The column's main forces, liberally supplied with tanks, artillery and air power, would constitute the shock group, which would deploy behind the holding group's screen for an attack against the enemy's flanks and rear. If successful, the attack would hit the enemy's main forces before they had time to deploy, cutting off some units and destroying others. The battle would conclude with the relentless pursuit of the enemy forces until they were completely defeated.⁹³

The 'offensive battle' (*nastupatel'nyi boi*) was the name given to the attack against an entrenched defender, whether from the march,

⁹¹ S.A. Smirnov, *Taktika* [Tactics] (Moscow, 1935), pp. 176-79.

⁹² *Vremennyi*, pp. 85, 91; Smirnov, pp. 192-93.

⁹³ Smirnov, pp. 194-95.

or in circumstances in which the attacker also occupies a fixed position. The manual also foresaw the necessity of attacking fortified positions and overcoming the enemy's defence anchored on water barriers. The attack might also take place in a maneuver setting, in which the enemy's flanks are open and invite a turning movement, or along a continuous front, necessitating a breakthrough. In any event, the amount of space--at 37 pages this was easily the manual's longest chapter--devoted to the subject indicates that the Soviets expected such situations to predominate in a future war, a contention supported by the editor's (Tukhachevskii) public statements.⁹⁴

Preparations for the attack were complicated, reflecting the difficulties in achieving the proper coordination of the dissimilar combat arms and the expected problems of assaulting prepared defences. To carry this out, the commander was to concentrate two-thirds of his force at the point of decision. This meant that a reinforced rifle division would attack along a 3,000-3,500 meter front, with its regiments aligned in one or two echelons, while the regiments' battalions advanced in two to three echelons. The attacker's artillery, both organic and attached, would be grouped according to designation as previously described, as would the tanks. It was assumed that in most cases the DD tank attack would precede that of the infantry and its NPP tanks, although in terrain deemed difficult for tanks this order might be reversed. In such a case, the infantry and the NPP tanks would advance first, in order to seize the enemy's forward defensive zone and create gaps in his anti-tank defence. The long-range tanks would then be committed into these corridors for the subsequent drive into the enemy's defensive depth.⁹⁵

Air strikes, conducted against the targets already described, signalled the beginning of the battle, while the attacker's 'artillery preparation' augured the commencement of the ground assault. The artillery preparation might last as little as 10-15 minutes, or

⁹⁴ Tukhachevskii, II. 247.

⁹⁵ Smirnov, pp. 155-56; Vremennyi, pp. 102, 106.

continue for several hours, depending on the number and type of guns available, and the number of tanks slated to take part in the attack. The state of the enemy's defences also had a bearing on the duration of this period, with permanent fortifications requiring a longer and more systematic bombardment. During this phase the artillery's chief targets were the defender's artillery, his anti-tank weapons, certain fortifications, and the defender's machine gun emplacements in those areas not slated for the tank assault. With the beginning of the long-range tank attack, the artillery would concentrate its fire on the defender's anti-tank weapons and artillery, while accompanying the tanks through the enemy defences, with either a rolling barrage or directed fire. The artillery, upon completing this phase, would switch its efforts to supporting the infantry-tank attack, during which it concentrates its fires on the defender's remaining anti-tank weapons and machine guns.⁹⁶

The long-range tanks would begin their attack immediately upon the cessation of the artillery preparation by moving into the gaps blasted in the enemy's anti-tank defence, while at the same time being covered by continuous artillery fire. The tanks were to avoid protracted fighting wherever possible and, by bypassing centres of resistance, would race into the enemy's rear to destroy his reserves, communications and control centres and artillery, and to cut off the retreat of those forces engaged at the front. Here the defender would already be contending with the infantry-tank attack, which was to begin immediately upon the DD tanks' passage into the enemy rear, so as to take advantage of the disruption caused to the defender's fire system. The NPP tanks, supported by artillery fire, would then advance to clear a path for the infantry by suppressing the defender's machine gun system. As soon as the tanks passed through the forward defence line the infantry would begin its attack, following behind the tanks at a distance of 200 meters and consolidating this success by exploiting gaps in the enemy defence and moving into his

⁹⁶ Vremennyi, pp. 111-12.

rear. Elsewhere, the attacker's forces would beat off enemy counter-attacks, resulting in the defender's encirclement and destruction.⁹⁷

With the rupture of the enemy's tactical defence along the main axis, the way was now open to exploit the success by a vigorous pursuit in depth. The corps commander would direct his mobile units to continue the attack along the enemy's flanks and in his rear. In the air, assault and light-bomber aviation would harry the defender's retreating columns, particularly at river crossings and other natural obstacles, while fighter aviation would cover the pursuing columns. The enemy forces still resisting along the attack's inner flanks would be cut off and surrounded by the attacker's mobile units in the rear, to be dealt with by the infantry units moving up from the rear. At this point the tactical phase would end and the way now lay open to transforming the success into one of operational proportions.⁹⁸

The manual viewed the tactical defence as an unpleasant but sometimes necessary measure to husband forces for an attack along another sector; to win time in order to gather forces for an attack; to occupy the enemy until the main attack has succeeded; to retain vital territory; and, to foil the enemy's attack in order to launch a counterattack. The defensive battle might be waged along a broad front, based on non-contiguous but mutually-supporting strongpoints, which would sacrifice territory in exchange for time, and; along a continuous front, which was viewed as the most likely form.⁹⁹

The defence, in most cases, would consist of a forward zone of engineering and chemical obstacles, up to 12 kilometers from the main position, and manned by small infantry units and artillery. Behind this lay a somewhat stronger zone of defensive strongpoints, one to three kilometers from the main zone. The main defensive position contained the bulk of the defender's forces and weapons, including divisional shock groups. Behind this line, at a remove of 12-15

⁹⁷ Ibid, pp. 106, 115; Smirnov, p. 165.

⁹⁸ Vremennyi, pp. 119-21.

⁹⁹ Ibid, pp. 132, 153-54.

kilometers, lay the rear defensive zone. A rifle division in such an arrangement would occupy a front of eight to 12 kilometers in breadth and four to six in depth, with its subordinate units occupying proportionately smaller frontages.¹⁰⁰

The manual stressed that modern defence must be, above all, anti-tank in character, designed to cut the enemy armour from its supporting infantry and destroy it in detail. This involved creating special anti-tank strongpoints within the main defensive zone, specially configured so as to create corridors for the passage and destruction of the enemy tanks. Thus those enemy tanks which survived the defender's artillery barrage to reach the main defensive zone would be met by massed fire from anti-tank guns and the defender's own tanks. The greater part of the defender's artillery and all of his infantry weapons would be turned on the advancing infantry. Those enemy tanks which failed to penetrate to the main defence zone would, in turn, be attacked by the defender's anti-tank reserve and his tanks, as the prelude to a larger counterattack by the shock group. This attack, supported by artillery and aviation, would either restore the situation or exploit the success into the enemy's position.¹⁰¹

The gap between theory and practice would ultimately reveal a number of shortcomings in the Red Army's approach to the deep battle. The most serious of these was the order of attack by the long-range and infantry support tanks. Even the limited combat experience of 1939-40 would show how awkward this arrangement was in reality. Moreover, future combat in Mongolia and Finland would show that even a powerful artillery preparation could not be relied upon to destroy enough of the defender's anti-tank weapons to enable the long-range tanks to precede the ground attack without unacceptable losses. Instead, the infantry and its support tanks would have to clear a passage in the enemy's tactical defence for the long-range tanks, in

¹⁰⁰ Ibid, 134-35.

¹⁰¹ Ibid, pp. 133, 136, 138-39, 149, 151.

order to preserve the latter's strength for the attack in depth.

More laudable was the Red Army's balanced approach to the combined-arms battle, which avoided such extremes as the Germans' excessive reliance on the tank for achieving a breakthrough. This was offset, however, by the Soviets' continued emphasis on the employment of large cavalry formations, which was particularly anachronistic in light of the army's enthusiastic embrace of mechanization in all its forms.

D. The Deep Operation

Under modern conditions, however, it is not enough to simply break through the enemy's tactical defence, as crucial as that first step is, and the deep battle offers no solution to the problem of sustaining an advance beyond the immediate tactical defence zone. This is because modern defensive arrangements are distinguished above all by their great depth, and tactical success alone counts for little against an operational defensive zone extending dozens of kilometers behind the front line. This area, containing the defender's army and front reserves, presents a serious obstacle to any attack which seeks to develop a breakthrough beyond the initial tactical defence and to maintain the offensive's impetus against these forces. This had been shown to be the case repeatedly during the Great War, most notably during the Germans' March 1918 offensive in France, which for all its spectacular success, failed to yield a decisive operational result.

Offensive gains during the war were confined to the defender's tactical zone because of the attacker's limited mobility and his inability to influence the fighting much beyond the immediate battlefield, due to the restricted range, speed and reliability of existing weapons. Under these circumstances, the attacker was unable to exploit even the most favorable tactical success because he could not push his infantry into and beyond the breach rapidly enough, while the cavalry and armoured forces at his disposal were too vulnerable

or technically unreliable to be of much use. As a result, the defender's army reserves were usually free to move up relatively unhindered to the threatened area to seal the penetration and restore the situation, because the attacker's nascent long-range weapons (tanks and aircraft) were as yet incapable of isolating the battlefield and preventing their arrival. Thus by the end of the war, despite a number of impressive tactical achievements, an operational solution to the trench deadlock seemed as remote as ever.

By the early 1930s, however, the new weapons had finally come into their own and their potential could be fully realized. By then, ongoing improvements in their range, speed and technical reliability had begun to shift the advantage increasingly in favor of the offensive, despite impressive parallel improvements in defensive means. At the same time, new tank and aircraft models were entering service in amounts sufficient to form motorised divisions, mechanised corps and air armies. The convergence of these qualitative and quantitative trends prompted many of the Red Army's leading thinkers to take up the problem of adapting the conduct of offensive and defensive operations to the new technology.

The result was the theory of the 'deep operation' (*glubokaia operatsiia*), the development of which was substantially completed by 1936-37, although the basic idea was continually refined for many years afterwards. The deep operation was geared towards operations at the army and/or front level and was at once larger, in terms of forces engaged, than the deep battle, which in organisational terms reached no higher than a corps. It was also considerably more ambitious in its goal of combining the efforts of ground, air and airborne forces to launch a 'simultaneous blow throughout the entire depth of the enemy's operational defence', in order to prevent or delay the arrival of his operational reserves by defeating these units in detail; surround and destroy those units still at the front, and; to continue the offensive into the defender's operational and

strategic depth.¹⁰²

Central to the deep operation's success was the composition of the shock army, either acting independently, or with other armies as part of a larger front operation. However, during these years, as in the preceding decade, the single army operation remained the focus of attention. The term had been popularized by Triandafillov, who made the shock army the centrepiece of his The Character of Operations of Modern Armies, and it retained its utility throughout the 1930s, despite the army's changing structure. The shock army, according to Triandafillov's original proposal, would consist of 12-18 rifle divisions, grouped into four to five corps. These units would be supplemented with some 16-20 artillery regiments and eight to 12 tank battalions, plus additional fighter and anti-aircraft units to provide air cover, as well as two or three air brigades for offensive purposes, and miscellaneous chemical and other units.¹⁰³

Although Triandafillov's original sketch was fairly modest by modern standards, it still vastly exceeded the Red Army's technical capabilities as of 1929. However, the quantitative achievements in military production resulting from the first Five-Year Plan soon caused Triandafillov to revise his projections. By 1931 he was proposing a number of variations on the theme of the shock army, comprising 12-15 rifle divisions (four or five corps). The shock army, according to one proposal, would be reinforced for an offensive operation with six to nine artillery regiments, plus another two or three regiments of heavy guns. Another variant posited an additional 12-18 tank and tankette battalions, supplemented by one or two additional battalions of heavy tanks. A third proposal foresaw a more balanced distribution of offensive weaponry of up to three or four artillery regiments, two to three heavy artillery regiments, and eight to 12 tank and tankette battalions. The shock army might be

¹⁰² N. Varfolomeev, 'Operativnoe Iskusstvo na Sovremennom Etape' [Operational Art at a Modern Stage], Krasnaia Zvezda (Moscow), 3 June 1932, p. 2.

¹⁰³ Triandafillov, Kharakter, 1st ed., pp. 96-99.

further reinforced by the inclusion of two or three aviation brigades of assault and light-bomber aircraft, plus six to eight fighter squadrons, for an overall strength, including organic air units, of 500-600 planes.¹⁰⁴ Triandafillov, to judge from the report, was not immune to the zeal for mechanisation then sweeping the army, although even more equipment-heavy proposals were to appear.

Triandafillov died not long after submitting the report, but his work on the shock army's composition was continued by colleagues in the RKKA Staff apparatus. These ideas were elaborated in the report 'The RKKA's Tactics and Operational Art at a New Stage', which was distributed in the summer of 1932 for study and comment by military district commanders and other high-ranking personnel. And although the document appeared over Chief of Staff Egorov's signature, the ideas expressed are unmistakably Triandafillov's and represent a further distillation of his views.

One proposal, evidently tailored to an army attacking in an area unsuited for the mass employment of armour, posited a 15-division shock army, reinforced with 468 guns (108 of them of the heavy type) from the High Command Artillery Reserve. Combined with the rifle corps' organic complement of 1,515 small and medium-calibre weapons, this yielded a total of 1,983 guns of all types, plus 250 tanks drawn from the corps' organic stocks. A second variant, intended for an army attacking in an area more favorable for tanks, proposed reinforcing the shock army with 348 guns, for a total of 1,863 artillery pieces, including 108 heavy guns. The reduction in firepower would be offset by the addition of 20 tank battalions (1,000 tanks) from the High Command Tank Reserve, or 1,500 tanks in all, including organic corps vehicles. The shock army might be further reinforced by the addition of between four and five assault and light bomber brigades, two reconnaissance and five to six fighter squadrons, which, including organic corps and other units, would raise the army's air strength to some 850-900 aircraft. In case of

¹⁰⁴ TsGASA, fond 37977, opis' 3, delo 368, p. 966.

need, the shock army might also call upon the front's heavy bomber units.¹⁰⁵

Triandafillov's untimely death in the summer of 1931 left the small fraternity of operational theorists 'orphaned' and lacking direction, according to one participant.¹⁰⁶ One of those who helped fill the gap was Nikolai Efimovich Varfolomeev, who was already known for his earlier writings on the theory of consecutive operations and the place of operational art in military art. Varfolomeev was born in 1890 and rose to the rank of captain in the tsarist army during the First World War, and was a member of the old General Staff Academy's final graduating class in 1918. He joined the Red Army that same year and later served as chief of an army staff and deputy chief of staff of a front during the Civil War. Varfolomeev's peacetime career included a stint as a military district chief of staff and service at the Frunze Military Academy, where he was awarded the distinguished title of professor. From this position he was ideally placed to pass on the old army's legacy to the new, which he did through a number of influential articles and books. Varfolomeev later served as chief of staff of the Leningrad Military District during the 1939-40 war with Finland and was arrested as a result of the army's reverses during that disastrous campaign.¹⁰⁷ The manner of his death is unclear, although it is likely that he was executed in October 1941 in Kuibyshev, along with a number of other high-ranking commanders.

Varfolomeev's most important work was his 1933 book, The Shock Army, a detailed analysis of the cycle of German and Allied offensive operations conducted during the summer of 1918. The subject matter reflected the Red Army's ongoing preoccupation with the operational events of the war's climactic year and the lessons to be gleaned from

¹⁰⁵ TsGASA, fond 31983, opis' 2, delo 18, pp. 159-58.

¹⁰⁶ Isserson, 'Razvitie', p. 39.

¹⁰⁷ R.A. Medvedev, Let History Judge. The Origins and Consequences of Stalinism, ed. D. Joravsky and G. Haupt, trans. C. Taylor (New York, 1971), p. 248.

them.¹⁰⁸ This was because it was assumed that many of the conditions which obtained in 1918 (continuous fronts, a deeply-echeloned defence, etc.) would recur in a future war to greater or lesser degree. Furthermore, the scope of the 1918 fighting was bound to excite the imagination of an army which more than anything else sought to avoid a repetition of the 1914-18 trench deadlock.

Varfolomeev's predominantly historical study was less concerned with the deep operation's quantitative indices that Triandafillov had been, and specific recommendations as to the size and technical composition of the shock army are few, although the work's speculative sections presuppose large numbers of aircraft, tanks and mechanised troops. Rather, Varfolomeev focused on the mechanics of the shock army's mission, which he defined as 'launching an uninterrupted, deep and shattering blow' along the main axis of advance. Such a task required that the shock army possess the requisite forces, firepower and mobility to overcome the enemy's tactical defence and operational reserves and to complete the destruction of the main enemy force through a series of consecutive operations.¹⁰⁹

Varfolomeev believed that the reality of deeply-echeloned tactical and operational defensive zones called for comparable measures by the attacker. Or, as he stated in a previous article, 'only a deep formation ensures the launching of a deep blow'.¹¹⁰ This suggestion was not new, and during 1918 the Germans had attacked using as many as three echelons. However, the attacks ultimately foundered because of the attacker's inability to strike deeply and quickly enough into and beyond the defender's army reserves, in order

¹⁰⁸ See also the articles by A. Mialkovskii, 'Udarnaia Armia' [The Shock Army], *V&R* (1931), no. 2, pp. 48-68; N. Varfolomeev, 'Nastuplenie 18-1 Germanskoi Armii Vesnoi 1918 g.' [The German Eighteenth Army's Spring 1918 Offensive], *V&R* (1931), no. 7, pp. 42-70, and; Ia. Zhigur, 'Proryv Oboronitel'noi Sistemy po Opytu Mirovoi Voiny' [Breaking Through a Defensive System According to the Experience of the World War], *V&R* (1935), Jan.-Feb., pp. 74-89.

¹⁰⁹ Varfolomeev, *Udarnaia*, p. 173.

¹¹⁰ N. Varfolomeev, 'Glubokaia Operatsiia' [The Deep Operation], *Krasnaia Zvezda* (Moscow), 5 Nov. 1932, p. 2.

to prevent the establishment of a new defensive front. The resulting need to maintain the necessary tactical densities to carry out repeated breakthroughs robbed the succeeding echelons of the strength to sustain an advance into the operational depth. It was only the appearance of large numbers of new offensive weapons and their integration into the existing method of employment that enabled the attacker to simultaneously launch an assault throughout the entire depth of the enemy's army reserves and expand the initial breach of the defender's tactical zone into a breakthrough of operational proportions.

Varfolomeev accordingly divided his shock army into two echelons, distinguished by their differing objectives and the numbers and types of forces allotted to them. The first was the 'tactical breakthrough echelon' (*eshelon takticheskogo proryva*), composed of reinforced rifle corps. These would be backed up by a second line of divisions from the army's reserve, to sustain the force of the initial breakthrough attempt. These forces would launch the initial assault against the defender's tactical zone to a depth of some 15-20 kilometers and contact with his army reserves.¹¹¹

At this point the army commander would commit his second, or 'operational breakthrough echelon' (*eshelon operativnogo proryva*), to expand the tactical breakthrough into one of operational scope by striking deep into the enemy rear. Whereas the first echelon emphasised raw striking power in order to pierce the layered enemy defence, the second relied on speed and mobility. This echelon, heavily reinforced with tanks, mechanised infantry and cavalry units, would seek to turn the enemy's now-exposed flanks and encircle his forces still engaged along the front, possibly in conjunction with another shock army's attack. Other units, aided by deep air strikes, would press the attack into the operational and strategic depth, defeating the defender's reserves as they move up to the battlefield, and destroying his communications, command and supply points.

¹¹¹ Varfolomeev, *Udarnaia*, pp. 173, 184.

Varfolomeev warned that to prevent the enemy's escape, those units pursuing from the front must advance at a rate of at least 20-25 kilometers per day, while those mobile units operating against his flanks and rear must cover as much as 40-45 kilometers per day.¹¹²

Other proposals were offered during this period in an effort to 'flesh out' the shock army's organisational structure. Among the most balanced of these was put forward by Varfolomeev's academic colleague, P.I. Vakulich. The latter's projected shock army consisted of 15-16 rifle divisions; one motor-mechanised and one cavalry formation; 12-15 tank battalions; nine to 12 additional artillery regiments; four to six light aviation brigades and a fighter unit, as well as other air and anti-aircraft units, and, if necessary, light and heavy bombers from the front command.¹¹³

There were a number of excesses as well, which is hardly surprising, given the spirit of the times and the pace of the Red Army's mechanisation drive. One of the more egregious examples of this was put forward in 1932 by Ia.M. Zhigur, an instructor at the Frunze Military Academy. Zhigur advocated creating a shock army of four to five rifle corps, motor-mechanised and cavalry units, 2,000 tanks and as many aircraft, plus 12-15 regiments of guns from the High Command Artillery Reserve.¹¹⁴

Even these figures are small compared to those contained in a report compiled by the staff of the Urals Military District in the autumn of 1936. A shock army, according to this proposal, would consist of 12 rifle divisions; a mechanised corps and an independent mechanised brigade; three cavalry divisions; a light-bomber brigade and two brigades each of assault and fighter aircraft, plus three reconnaissance squadrons; six tank battalions; five artillery regi-

¹¹² *Ibid*, pp. 173, 183.

¹¹³ P.I. Vakulich, 'Sovremennaia Operatsiia' [The Modern Operation]. In V.N. Levichev, ed., *Voina i Voennoe Delo* [War and Military Affairs] (Moscow, 1933), p. 557.

¹¹⁴ Ia. Zhigur, 'O "Glubinnoi Taktike" i "Prostranstvennoi Operatsii"' [On "Deep Tactics" and the "Spatial Operation"], *Krasnaia Zvezda* (Moscow), 15 Aug. 1932, p. 2.

ments, plus two heavy artillery battalions; and two battalions of chemical troops. The shock army, at full strength, would number nearly 300,000 men; 100,000 horses; 1,668 small-calibre and 1,550 medium and heavy-calibre guns; 722 aircraft, and 2,853 tanks.¹¹⁵

Such extreme proposals were not only far-fetched for the time, but in numbers of armoured vehicles they greatly exceeded even the large tank armies of World War II. Considerations of the Soviet penchant for gigantism aside, these and other, more moderate studies dealing with the shock army nevertheless represent one of the more intriguing and productive areas of military thought during the inter-war period. By 1937 the Red Army possessed, at least in theory, a powerful instrument, which would enable it to meet any operational eventuality.

The deep operation, as did the deep battle, recognized three subordinate types. These were the meeting, breakthrough and defensive operations. The latter is self-explanatory and will be dealt with later. Confusion most often arises when dealing with the other two types, which are variations of the generic offensive operation. Whereas the breakthrough operation against an enemy along a continuous front is by and large the defensive operation's opposite number, the meeting operation occurs when two or more armies, each attacking, collide. Such a situation most often arises at the beginning of a war, when both sides are pursuing an offensive strategy, and usually represents the first major operations along the belligerents' respective frontiers. The most noteworthy example of a series of meeting operations occurred along both fronts in August 1914, when the chief belligerents launched major offensives in the war's first weeks. A meeting operation might also take place along the still-open flanks of an otherwise-continuous front, or, on rare occasions, following a particularly successful breakthrough operation, in which freedom of maneuver has been temporarily restored.

¹¹⁵ Shtab Ural'skogo Voennogo Okruga, Proekt--Osnovy Vedeniia Operatsii [A Draft--Fundamentals of Waging Operations], [Sverdlovsk], 10 Oct. 1936, pp. 153-54. Considerations of secrecy make it impossible at this time to cite this archival document in the usual manner.

The meeting operation, because it is most likely to occur in the war's first weeks, is closely bound up with the armed forces' strategic deployment plans. These plans, dictating the army's placement and initial actions along the frontier, inevitably contain the germ of the war's opening operations, just as Neznamov had noted some 20 years before.¹¹⁶ This was still the case, although the armed forces' technical composition had changed dramatically since 1911, with an emphasis on greater range, mechanisation and striking power. These developments, in turn, had a decisive effect at the strategic level, as reflected in various theories, discussed earlier, under the rubric of the 'beginning period of the war'.

As we have seen, the armed forces' mobilisation and deployment efforts at the beginning of a war would consist of several strategic echelons, arriving consecutively from the interior. The first strategic echelon, according to one scenario, would actually consist of a number of smaller, operational echelons, divided among themselves according to their range, speed and mobility. The first operational echelon would consist of aviation, both army organic and long-range front or strategic forces, capable of bombing targets in the enemy rear and clearing the way for the ground forces' advance. The latter would be spearheaded by the second, or army 'vanguard echelon' (*avangardnyi eshelon*), or AVE, made up of mechanised and motorised units, plus 'mechanised cavalry'. This would be followed by the third, or main echelon, containing most of the army's men and materiel. Finally, the army's reserve echelon, consisting of late-arriving units and heavier weapons, would bring up the rear. In all, it was calculated that this invasion army would stretch some 250-300 kilometers to the rear as it advanced, while its front occupied a mere 75-100 kilometers in breadth.¹¹⁷

Such an extensive echelonment in depth creates several problems

¹¹⁶ Neznamov, p. 15.

¹¹⁷ Isserson, *Evoliutsiia*, pp. 79-80; Isserson, *Osnovy*, p. 64; N. Varfolomeev, 'Vstrechnaia Operatsiia' [The Meeting Operation], *V&R* (1930), no. 7, p. 28.

for the shock army commander. Chief among these is that the vanguard echelon would engage the enemy first, even as succeeding echelons were still moving up to the front. This raised the spectre of the shock army being defeated by a superior enemy before the commander could bring his entire force to bear, making the uninterrupted replenishment of the forces at the front by succeeding echelons critical, lest the army be overwhelmed and defeated in detail. Such fears led one theorist, G.S. Isserson, to the somewhat schematic conclusion that in the meeting operation 'ultimate success will go to him whose operational formation is deeper'.¹¹⁸

Another difficulty was the vital importance which such a deep formation placed on the proper pre-battle disposition of forces. That is, the speed at which the different echelons advance makes large-scale regroupings on the march exceedingly difficult. Therefore, it was vital that the future shock grouping, or some other offensive intention already be present in the army's march order. A turning movement, under these circumstances, was deemed particularly promising, given the likelihood of open flanks at the onset of hostilities, and one theorist urged that front commanders to organise their subordinate armies' marches so that even a frontal collision would lead to the turning of the enemy's flanks and the encirclement of his main forces.¹¹⁹

The meeting operation would actually begin in the air, preceding the collision of the ground forces. Prior to this, the army's 'aviation group' would be primarily concerned with covering the forwards units' march and deployment, and challenging the enemy for local air superiority. As the two forces approached, the aviation group's efforts would be increasingly directed against the enemy's

¹¹⁸ Isserson, Evoliutsiia, p. 82.

¹¹⁹ E. Shilovskii, 'Vstrechnaia Operatsiia' [The Meeting Operation], Krasnaia Zvezda (Moscow), 11 Nov. 1932, p. 2. Among others who felt that the army's march order should reflect its future battle order were Isserson, Osnovy, p. 66; Varfolomeev, 'Vstrechnaia', p. 29, and; A. Bazarevskii, 'Vstrechnaia Operatsiia' [The Meeting Operation], Voennaia Mysl' [Military Thought] (1937), no. 3, p. 104.

troops, supply lines and rail installations. In certain cases, bombing and other air activity may be conducted to a depth of 300 kilometers and be accompanied by gas attacks and airborne landings in the enemy rear.¹²⁰

The ground battle would open with the vanguard echelon's attack against the approaching enemy's flanks. This echelon, as it closes with the enemy, may leap forward as much as 100 kilometers ahead of the main body, while remaining in supporting distance by the latter. Smaller forces will simultaneously launch a supporting attack to aid the main effort, or, if defending, tie down enemy forces while the main attack progresses. The battle would continue with increasing intensity during the second and third days, as the vanguard echelon is steadily reinforced by infantry and other units arriving from the main body. The shock army, even while attacking, would still have to contend with the enemy's air and mechanised raids, as the battle ebbed and flowed along the front and in depth. In such a highly-fluid situation the operation may develop on both sides to a depth of 150-200 kilometers.¹²¹

Should the army's main attack prove successful, its mechanised forces, having turned the enemy's flank, will break into his rear areas, followed by infantry units to consolidate the success. As the defender begins to withdraw, the shock army's motor-mechanised and cavalry units take up the pursuit by attacking his retreating columns, in order to cut off and surround them. Meanwhile, the shock army's air arm would harry the retreat from above, attacking both troops and vital crossings. The pursuit would be pushed as far as possible until exhaustion sets in. At this point, it was predicted that the front would temporarily stabilise along positional lines, at which time preparations for a new operation would begin.¹²²

A variation of this scenario posited the failure of the van-

¹²⁰ Isserson, *Osnovy*, p. 81; Bazarevskii, pp. 109-11.

¹²¹ Shilovskii, 'Vstrechnaia', p. 2; Isserson, *Osnovy*, p. 76.

¹²² Shilovskii, 'Vstrechnaia', p. 2; Isserson, *Osnovy*, p. 76.

guard echelon's initial assault during the first two days. In such an event, it was recommended that the mobile units be withdrawn from the battle to conserve their strength, with the main burden of the fighting then shifting to the infantry. Should the latter effort succeed, the vanguard echelon would then be recommitted into the battle to exploit rifle corps' success in depth.¹²³

Isserson paid special attention to the ambiguous nature of certain meeting operations, in which elements of the breakthrough operation are already clearly discernable. Such a situation might arise, he noted, when the vanguard echelon, having failed in its attack, is forced by enemy resistance to fall back upon the upcoming main echelon. In such a case, the vanguard echelon would be withdrawn and its place at the front taken by the main echelon. Isserson called this situation a 'crisis' in the development of the meeting operation, in which the attacker has already lost the maneuver advantage afforded by the presence of open flanks, and now faces the prospect of an impending solid front. However, he maintained that conditions still existed for successfully concluding the operation, due to the relative elasticity and undeveloped nature of the enemy's defences, without resorting to a full-fledged breakthrough.¹²⁴

This revived meeting operation would get under way with an attack by the main echelon's infantry units, supported by air strikes against the defender's front line troops and his rear targets. The attack would develop slowly at first, achieving a depth of only 20 kilometers during the first two days. Isserson calculated, however, that by the third day the breach in the enemy front would be sufficiently wide to commit the former vanguard echelon, now styled the 'success development echelon' (*eshelon razvitiia uspekha*), or ERU, into the battle, to carry the fighting into the enemy's operational depth. By the end of the fourth day the main echelon might have advanced as far as 50-60 kilometers, while the ERU would resume its

¹²³ Shilovskii, 'Vstrechnaia', p. 2; Isserson, *Osnovy*, pp. 81-82.

¹²⁴ Isserson, *Osnovy*, pp. 83-84.

former place in the army's advance by penetrating up to 100 kilometers in pursuit of the enemy along the lines already described.¹²⁵

However, the meeting operation, for all of the army's attention to the subject, never achieved the status of the breakthrough operation, chiefly because Soviet theorists, whatever their declared preference for maneuver, fully expected that a future conflict would contain extended periods of positional warfare. This bias was further strengthened by the type of offensive operations the Red Army conducted during World War II, which chiefly involved breaking through fixed positions along a relatively static, although porous front. This experience, in turn, had a retroactive effect on postwar Soviet views, in which the meeting operation has been nearly eclipsed by its better-known relation.

The breakthrough operation against an entrenched defender was the centrepiece of the Red Army's thinking about the deep operation during the 1930s. As such, the question attracted the army's best minds, who responded with a number of complex schemes, both open and classified, for breaking the positional deadlock and restoring maneuver to operations.

One of these was Tukhachevskii, who was now entering upon his most mature and productive period as a military theorist, in spite of the enormous demands on his time as overseer of the armed forces' technical rearmament. A contemporary described Tukhachevskii as the army's 'most outstanding military man, according to his strategic range of interests and operational capabilities'.¹²⁶ These views found expression in his New Problems of War, the first part of a projected three-volume work which the author dedicated to the recently-deceased Triandafillov. Tukhachevskii, who began working on the manuscript in 1931, evidently saw the work as a technically more-sophisticated update of his earlier Future War. Unfortunately, a revised draft was either lost or destroyed following Tukhachevskii's

¹²⁵ Ibid, pp. 84-85; 87-88.

¹²⁶ Isserson, 'Zapiski', p. 65.

death in 1937, and only the earlier version remains.

Another, lesser-known, figure was Aleksandr Il'ich Egorov, who during most of this period served as chief of the RKKA Staff, which in 1935 was renamed the RKKA General Staff. Egorov, as were most of those who occupied this position during the interwar period, was a former military specialist. Born in 1885, he rose to the rank of colonel during World War I, before joining the Red Army in 1918, where he commanded the Southern and Southwestern fronts and quickly fell under the influence of his political commissar, Joseph Stalin. Egorov commanded a number of military districts after the war, before becoming Chief of Staff in 1931. He has been unflatteringly described as a 'figurehead' chief of staff and lacking the 'ability to initiate much on his own'.¹²⁷ Egorov, while he certainly did not possess Tukhachevskii's brilliance and drive, by virtue of his good relations with Stalin and Voroshilov, could still push measures which his brash young counterpart could not. However, his long association with the Stalinist clique in the army did not save him in the end, and Egorov fell a victim to the purges at the end of the 1930s.

Egorov's chief contribution to the theoretical debate was his sponsorship of the report 'The RKKA's Tactics and Operational Art at a New Stage', which provides an interesting glimpse of the army's early official views on conducting the breakthrough operation. The report, modeled closely on Triandafillov's 1931 memorandum, echoed the latter's preoccupation with the strength of modern defence, which may extend up to 100-120 kilometers in depth and include both the defenders' tactical zone and his army reserves as well. The only hope of piercing this formidable barrier lay in the harmonious employment of the new combat arms, which the report identified as modern 'strategic' cavalry, motorised and mechanised forces, aviation, airborne troops, and chemical weapons.¹²⁸ The resulting marriage of firepower and maneuver would enable the attacker to conduct

¹²⁷ Martel, p. 24.

¹²⁸ TsGASA, fond 31983, opis' 2, delo 18, pp. 141-39.

an offensive throughout the entire depth of the enemy defence and to destroy the defender's front-line troops and deep reserves simultaneously.

Triandafillov's influence is particularly evident in Tukhachevskii's insistence that the offensive be mounted along a sufficiently broad front to ensure a decisive outcome. He criticized the Germans' March 1918 decision to launch their attack towards Amiens along a narrow (80 kilometers) front, which, he contended, left the Allies free to shift reserves to the threatened area. Tukhachevskii's attitude is not surprising, as the vast spaces of Eastern Europe made anything but a broad-front attack pointless. As we have seen, Brusilov reached the same conclusion in 1916 and enjoyed great initial success, although he lacked the technical means to exploit this victory to any great depth. This caused Tukhachevskii to conclude that in most cases 'The wider the attack front, the greater ... will be the operation's success'.¹²⁹ The author also echoed Triandafillov's preference for an encirclement as the operation's culmination. This would be achieved either by twin blows along converging axes, or through a single turning movement to pin the defender against a natural barrier or neutral frontier.¹³⁰

Egorov's shock army assault would begin with a heavily-infantry assault against the enemy's tactical defence zone along the lines already described. Upon penetrating to a depth of six to 10 kilometers, the army commander would commit his mobile forces to develop the attack in depth. Motor-mechanised units were expected to advance as deeply as 80-100 kilometers on the first day after commitment, with the more vulnerable cavalry covering the advance's flanks to a depth of 50-60 kilometers. These units would be supported by airborne landings in the enemy rear, to disrupt the arrival of the defender's reserves. The army's mobile formations would meanwhile

¹²⁹ M.N. Tukhachevskii, Novye Voprosy Voiny [New Problems of War] [Moscow], 1932, TsGASA, fond 33987, opis' 3, delo 1257, pp. 194-96.

¹³⁰ Ibid, pp. 189-92.

continue their attack, successively defeating the defender's reserves and destroying his airfields. These units would press on until the 'complete tactical encirclement' of the defender's forces still engaged at the front. Upon the defender's withdrawal, the pursuit phase would begin, with the infantry pressing him from the front, while motor-mechanised and cavalry forces would harry the retreat along the flanks, to cut off and encircle his retreating units.¹³¹

When Tukhachevskii began writing New Problems of War the Red Army's mechanisation program was only getting under way and some of his judgements betray an unreflective enthusiasm for the new combat arms and their potential. This was particularly evident in his comments concerning airborne forces, which he blithely assumed could act independently of the main forces for extended periods of time before returning to their base. Egorov, on the other hand, suffered from a lingering and archaic attachment to the cavalry arm, however 'modernised' it might be, although his views elsewhere were progressive enough for the time. In this, as in other areas, the two men's differences were due as much to temperament as conviction.

Certainly one of the most talented and original, although least well known, operational theorists of this period or any other was Georgii Samoilovich Isserson. Born in 1898, he was very much a product of the Soviet system, although like many others of his generation he undoubtedly owed much to the writings of his tsarist predecessors. Isserson, following service in the Civil War, was graduated from the RKKA Military Academy in 1924 and held a variety of command and staff assignments over the next few years. In 1931 Isserson was appointed to head the Frunze Academy's new 'operational department', and in 1936 he became the first chief of the department of army operations in the new General Staff Academy, where he was subsequently awarded the title of professor. One officer who studied under him called Isserson 'the most capable theoretician in the field of operational art' following Triandafillov's death, although he felt

¹³¹ TsGASA, fond 31983, opis' 2, delo 18, p. 136.

that Isserson overestimated his own importance.¹³² Following service as an army chief of staff during the Finnish War, Isserson was arrested in July 1941 for criticising the military leadership and spent the next 14 years in labour camps and internal exile. He was rehabilitated and returned to Moscow only in 1955, although his health had been ruined for good. Isserson nonetheless continued his academic labours in retirement until his death in 1976.¹³³

Isserson was one of the most prolific and erudite authors writing on tactics and operations during the 1930s.¹³⁴ Among his most important works on operational art were The Evolution of Operational Art (1932, 1937), and Fundamentals of the Deep Operation (1933), the latter of which remains classified to this day.

Isserson's *idée fixe* was the greatly enhanced role which the factor of depth had come to play in military affairs at all levels. According to this view, military strategy had developed from Napoleonic times and the 'strategy of a single point', through the Moltke era and the 'epoch of linear strategy', as the increased importance of fire caused military activities to expand in terms of breadth. The latter form, with its distinctive flanking maneuver, was evident at Konnigratz (1866), Metz (1870), Mukden (1905), and during the opening battles of World War I. However, Isserson argued that the disappearance of the open flank and the continuous front from the autumn of 1914 meant that this strategy was no longer viable. This meant, he wrote, resorting to Marxist terminology, that 'the linear strategy had arrived at its antithesis', a theoretical dead end from

¹³² I.Kh. Bagramian, Moi Vospominaniia [My Reminiscences] (Erevan, 1979), pp. 158-59.

¹³³ F. Sverdlov, 'On Videl Budushchuiu Voinu' [He Saw the Future War], Patriot [The Patriot] (Moscow), 1992, no. 19, p. 11.

¹³⁴ Isserson's tactical works include 'Kharakter Upravleniia Sovremennym Boem' [The Character of Directing the Modern Battle], V&R (1931), no. 5, pp. 56-62; 'Istoricheskie Formy Novykh Form Boia' [The Historical Roots of the New Forms of Battle], Voennaia Mysl' [Military Thought] (1937), no. 1, pp. 3-27, and; Lektsii po Glubokoi Taktike [Lectures on Deep Tactics] (Moscow, 1933).

which it could develop no further.¹³⁵ Military art now faced the task of breaking through a solid and deeply-echeloned front, which brought to the fore the factor of depth. Its role in the Great War and the likelihood that similar conditions would obtain in a future conflict caused Isserson to conclude that 'we are at the dawn of a new epoch in military art, and must move from a linear strategy to a deep strategy'.¹³⁶

This overall 'deepening' of war affected all levels of warfare, as was shown in the section covering the war's beginning period and the deep battle. The effect upon operational art was no less dramatic, and Isserson fully expected some form of positional warfare to recur following the clash of the sides' first strategic echelons in the war's opening meeting operations.¹³⁷

This meant that the Red Army faced the prospect of having to break through a deeply-echeloned front, whose depth Isserson calculated at between 100 and 120 kilometers. This area, he stated, consisted of three separate zones of varying depth. The first, or tactical, zone constituted the main line of resistance and was made up of two defensive positions. The first of these extended back some five to six kilometers from the front line, and a second 12 to 15 kilometers behind the forward edge of the first position. Behind this lay the operational zone, larger and less densely occupied than the first, embracing the railheads and supply stations to a depth of 50-60 kilometers. Here were concentrated the army's main reserves, airfields and support troops. A third, or rear, zone completed the picture. This area served as the link between the front and the country's strategic rear and included the area between the main rail distribution stations and the railheads. Also located in this zone were the front (strategic) reserves and heavy bomber airfields, as

¹³⁵ Isserson, Evoliutsiia, pp. 19-24, 40.

¹³⁶ Ibid, p. 62.

¹³⁷ Ibid, pp. 58-59, 82; Osnovy, p. 91.

well as the army's, and perhaps the front's, headquarters.¹³⁸

Such imposing depth raised the specter of a return to the conditions of 1914-18 and the dreary prospect of 'gnawing through' the enemy's defences. Isserson, to counter this, offered his own impressive shock army. This would comprise 15 rifle divisions; two cavalry divisions; three mechanised brigades; a motorised division; 20 tank battalions; eight howitzer regiments; four ground-support air brigades, and; two light-bomber brigades. This would yield, in raw figures, a force of 1,472 guns (575 of them heavy), 1,457 tanks (300 medium and the remainder light), 1,045 aircraft, including 378 assault aircraft and 168 light bombers, for a total force of slightly over 350,000 men.¹³⁹ Experience would later show that Isserson's shock army was too large and cumbersome to be controlled by a single army commander. Indeed, such a formidable combination of men and materiel compared favorably in size to some of the wartime fronts a decade later.

Isserson, as had Varfolomeev, divided his army into two parts for conducting the breakthrough operation. By far the largest of these was the 'attack echelon' (*eshelon ataki*), or EA, which had the initial tactical mission of piercing the enemy's forward defensive zone. The EA would consist of five rifle corps, of which four would be reinforced with the 20 tank battalions and 12 artillery regiments to ensure a preponderance of force at the point of decision. Once the breach was made, the 'breakthrough development echelon' (*eshelon razvitiia proryva*), or ERP, would rush into the gap to exploit the success in depth. Configured for operating in highly-fluid conditions, the ERP's strength lay in its mobility rather than raw striking power, and accordingly consisted of a mechanised corps, a cavalry corps, a motorised division, and an airborne detachment.¹⁴⁰

The breadth of the shock army's attack zone had always been

¹³⁸ *Osnovy*, pp. 95-99.

¹³⁹ *Ibid*, p. 33.

¹⁴⁰ *Ibid*, pp. 30-31.

another critical factor in Soviet calculations. Isserson believed that the army should attack along an overall frontage of 70-80 kilometers. According to this scenario, the four reinforced rifle corps would make the main breakthrough attack along a front no less than 30 kilometers in width, which was considered the minimum necessary to allow for the ERP's passage through the gap without interference from the defender's artillery along the flanks of the penetration. The breakthrough zone, under especially favorable conditions, might be expanded to 45-50 kilometers. In this case, each reinforced rifle corps would attack along a 10-12 kilometer front, with each division in the corps' first echelon attacking along a six-kilometer front, with a density of 18.5 guns, 13.1 aircraft, and 18.2 tanks per kilometer. The fifth rifle corps would support the main effort with its own attack along a 15-20 kilometer front.¹⁴¹

The breakthrough operation would begin in the air, one or two days before the start of the ground attack. This phase would immediately extend throughout the entire depth of the enemy's operational defence, with the main mass of the army's air strength (fighters and assault aircraft) directed against the defender's air strength and his front-line positions along the projected breakthrough zone. Bomber aviation would seek out targets deeper in the enemy rear, in order to isolate the battlefield and prevent the arrival of the defender's reserves to the threatened area. At the same time, the army's airborne detachment (ADO) would be dropped some 50-60 kilometers behind the front, with the task of disrupting the defender's command and control system.¹⁴²

The ground attack would commence with the EA's assault against the defender's tactical zone in a combined ground-air attack along the lines of the deep battle. The defender's first position would

¹⁴¹ *Ibid*, pp. 28-29, 32-34, 109-10. Isserson's calculations were supported by a several of his contemporaries. See Triandafillov, *Kharakter*, 1st ed., pp. 121, 126; Varfolomeev, *Udarnaia*, pp. 181-82, and; Vakulich, p. 555.

¹⁴² Isserson, *Osnovy*, pp. 103, 113, 121.

receive the brunt of the assault, as the second position was rarely fully-manned and served chiefly as a reserve position for the front-line troops. Isserson calculated that the fighting for the first position would continue four or five hours, which he considered sufficient time to break through to a depth of five to six kilometers. At this point he recommended committing the ERP into the breach, a decision which he called 'one of the most complex and responsible' in the entire operation, requiring all the army commander's skill. To commit the ERP too early meant involving it in the battle for the first tactical position, from which it might emerge too weak to carry out its primary mission of striking in depth. To delay in committing the echelon would allow the first position's defenders time to fall back and occupy the second position and be reinforced by reserves from the defensive depth, which might well necessitate a repetition of the tactical breakthrough.¹⁴³

The question of when to commit the ERP was studied intensively by Isserson's department of army operations during the winter of 1937. The study, entitled 'The Army Offensive Operation in the Beginning Period of a War' examined in detail this and a number of other questions, many of which would remain a source of controversy for many years.¹⁴⁴

The study posited three possible scenarios for committing the ERP into battle. The first involved an attack against a weak defender lacking major reserves. In this case, the ERP would be committed at the beginning of the attack, or before the complete rupture of the tactical defence. The second alternative, however, was considered the most likely and involved an attack against a moderately strong defender. In this case the ERP would be committed once the tactical defence had been pierced, preferably by the end of the first day. The third scenario was considered the most difficult and foresaw an

¹⁴³ *Ibid*, pp. 105-06, 113-14.

¹⁴⁴ Zakharov, *General'nyi*, p. 105; V.A. Anfilov, *Bessmertnyi Podvig* [The Eternal Feat] (Moscow, 1971), p. 143.

attack against heavily-fortified defensive positions. In such a situation the ERP would be committed along with the attack echelon to strengthen the weight of the blow against the tactical defence zone. This was considered the least preferable variant, as it would involve heavy fighting through the tactical defence zone for several days, resulting in serious losses and a corresponding decline in the breakthrough development echelon's ability to subsequently exploit the success in depth.¹⁴⁵

The department also examined the possible forms which the ERP's actions might assume after piercing the tactical defence. The first, or brief, variant pitted a relatively weak attacker and defender against each other. In this case, the ERP, having broken through the tactical zone's second position, would turn immediately inward to encircle the remaining defenders, leaving only a few mobile units to carry the advance to a depth of up to 50 kilometers. The second, or deep, variant involved an attack by a powerful breakthrough echelon to a depth of as much as 100 kilometers. The ERP, in conjunction with air strikes and airborne landings in the rear, would engage and destroy the defender's operational reserves and block the retreat of those defenders still at the front. The third, or 'combined', variant posited the actions of two separate armies' breakthrough development echelons as part of a larger front operation. In this case, the armies' two ERPs, operating along converging axes, would drive deep into the defender's rear to encircle large numbers of enemy forces.¹⁴⁶

According to Isserson, the ERP's mechanised corps would be committed into the tactical breach on the first day, followed by the cavalry corps in the case of a single, large penetration. If more than one breakthrough zone developed, the two formations might be committed simultaneously along different sectors. This would be

¹⁴⁵ G. Isserson, 'Razvitie Teorii Sovetskogo Operativnogo Iskusstva v 30-e Gody' [The Development of the Theory of Soviet Operational Art in the '30s], *V-IZh* (1965), no. 3, p. 53.

¹⁴⁶ *Ibid.*, pp. 53-54.

followed on the operation's second day be the introduction of the ERP's motorised division.¹⁴⁷

The mechanised corps would quickly pass through the defender's unoccupied second tactical position and into the operational defence zone to a depth of 50-60 kilometers during the day following the breakthrough. The cavalry corps will advance along a slightly different axis to a depth of 30-40 kilometers. Together the two formations form the wedge of the shock army's projected turning movement, with the mechanised corps covering the longer, outer flank, and the cavalry the shorter, inner flank. By the end of the first day the ERP is to link up with the airborne forces in the enemy rear while attacking and destroying the defender's operational reserves as they move up to the battlefield. These activities are supported by the greater part of the army's air group, which covers the ERP's advance and assists the attack by targeting the defender's reserves and communications. At the same time, strategic aviation would assist in isolating the battlefield by attacking mobilisation, supply and rail centres in the enemy's interior.¹⁴⁸

By the end of the second day following the breakthrough the ERP will in several places have penetrated throughout the rear zone to a depth of 100-120 kilometers. Here, the echelon will continue its attacks against the defender's reserves, while at the same time it seeks to complete the encirclement of those defenders now isolated along the original front, in conjunction with the infantry units. The EA's lead units, meanwhile, would clear the enemy's tactical zone by the end of the second day, where they will assist the army's mobile group in 'mopping up' any lingering enemy resistance. Once this task was completed, the EA could then be brought up by auto transport over the next few days to the ERP's front.¹⁴⁹

¹⁴⁷ Isserson, Osnovy, pp. 114, 117.

¹⁴⁸ Ibid, pp. 115-16, 118-20, 122.

¹⁴⁹ Ibid, pp. 117-18, 123; Varfolomeev, Udarnaia, p. 182; Vakulich, p. 558; I.S. Savinov, 'Operatsii Okruzheniia' [Encirclement Operations], V&R (1934), July-Aug., p. 23.

A success of this magnitude, as a result of the breakthrough operation, inevitably raised the question of the offensive's further development in depth. This, in turn, meant conducting a series of consecutive operations, the theoretical elaboration of which had been substantially completed by the end of the 1920s.

Isserson believed that the necessity for conducting such operations would quickly become evident, even as the initial breakthrough operation was reaching its zenith. This was because the defender, despite his defeat, would by the operation's fourth or fifth day have succeeded in bringing up sufficient forces from his deep reserves to construct the rudiments of a new front. Should these forces counterattack, a new operation would begin, unfolding along the lines of the meeting operation, as described earlier. In such a case, the ERP would automatically become the vanguard echelon, while the EA would assume the functions of the army's main echelon. Those units whose arrival is delayed by the need to finish off those defenders still at the front, constitute the reserve echelon. Likewise, should the enemy's reserves succeed in halting the attacker and reestablishing a solid front, a new breakthrough operation would have to be organised.¹⁵⁰

Isserson calculated that a series of consecutive operations launched from the USSR's western frontier against the Polish army would require a month to reach the line of the middle Vistula, a distance of some 400 kilometers. This meant an average daily rate of advance of 15 kilometers, not counting those relatively immobile days spent preparing new breakthrough operations.¹⁵¹

An uninterrupted advance to such a depth, although it held out the opportunity for great operational success, inevitably raised the specter of exhaustion. As we have seen, success depends ultimately upon the attacker's human and materiel superiority over the defender at every stage of a series of operations, and particularly at its

¹⁵⁰ Isserson, *Osnovy*, pp. 127-29.

¹⁵¹ *Ibid*, pp. 130-31.

culmination point. An operation without this superiority risked defeat even under the most favorable conditions, as had been the case in 1914 and 1920. If anything, the problem had grown more acute since then, as modern armies' materiel needs had increased substantially, even as the means of delivering the necessary supplies had changed very little. Varfolomeev, for example, calculated a shock army's daily supply needs at 40-45 trains during an offensive, which was moderate in comparison with other projections.¹⁵² One author's gloomy reading of these statistics led him to conclude that supply problems would compel a future attacker to call a halt in the advance after only 150-200 kilometers, in order to put his rear services in order.¹⁵³

Isserson, however, was considerably more sanguine as to the prospects of conducting operations to such a great depth, and his optimism was based primarily on his faith in the efficacy of modern technology to overcome most of the shock army's supply problems. He calculated that a series of operations carried to a depth of 400 kilometers would outstrip its rail lines by some 150 kilometers, given an average daily repair rate of eight kilometers. The remaining distance could be filled by the army's organic transport system and divisional supply services to a depth of 125 kilometers, leaving a supply shortfall of 25 kilometers. Isserson maintained that this distance could easily be made up, either by increasing the rate of rail repair, or expanding the capabilities of the army's supply system.¹⁵⁴

However, even Isserson was forced to admit that the carrying capacity of a newly-restored rail line would probably be insufficient to meet all of the shock army's supply needs during the course of a

¹⁵² Varfolomeev, *Udarnaia*, p. 186. See also F. Trutko, 'Material'noe Obespechenie Operatsii Udarnoi Armii' [The Materiel Supply of a Shock Army's Operations], *V&R* (1932), no. 11-12, p. 74.

¹⁵³ Appen, 'Problema Narastaniia i Istoshcheniia v Grazhdanskoi Voine, 1918-1920 gg.' [The Problem of Accumulation and Exhaustion in the Civil War, 1918-1920], *V&R* (1932), no. 7, p. 64.

¹⁵⁴ Isserson, *Osnovy*, p. 131.

month's advance. Rather than halt the advance and allowing the enemy to regroup and establish a new front, Isserson recommended detaching the most mobile elements (the mechanised and cavalry corps and motorised units) from the main body to form a new vanguard echelon. This echelon, supported by the bulk of the army's air arm, would then continue the offensive, without pausing, ahead of the army's slower-moving rifle units until the operation's successful conclusion.¹⁵⁵

From the above, it is evident that the basic theory of conducting consecutive operations had changed little since the 1920s, despite the advent of modern weapons. Here, as in so many other areas, Soviet practice continued to lag behind theory, and it was not until World War II and the arrival of large amounts of American and British wheeled and tracked vehicles that the Red Army finally attained the requisite transport capability to carry out sustained operations in depth.

However, an attack of this magnitude, even if carried out by a reinforced shock army, could not hope to achieve a decisive success, given the expected length of a future Eastern European front. The fact that such an attack would have to be supported by other armies, acting in concert, inevitably raised the question of the front level of command and its place in the theory of operational art.

One of those who devoted a good deal of thought to the subject was Varfolomeev, whose views on the front and its relationship to its subordinate armies were solidly in accord with what was by now an established tradition in Russian-Soviet military thought. His thinking on the subject is particularly indicative of Mikhnevich's and Movchin's influence concerning the relationship of 'complex' (front) and 'simple' (army) operations. 'In planning operations', Varfolomeev wrote,

... the front command establishes the final goal and breaks them [operations, R.H.] up into a series of intermediate ones. The achievement of these latter goals is assigned to the armies (as part of a front) and is regulated by definite tasks. With-

¹⁵⁵ *Ibid*, pp. 132-33.

in the framework of these tasks, forces and means allotted by the front, the armies organise and conduct their operations. As opposed to the front, simultaneously pursuing several goals and acting along several operational axes, an army pursues one goal and acts along a single operational axis. The grouping of army operations in time and space issues from the overall idea of the front operation and is aimed at achieving intermediate front goals. The front's influence on the grouping of army operations is expressed in the distribution of forces and means between the armies and the regulation of activities in time (deadlines) and space (axes and lines).¹⁵⁶

In certain cases, such as an operation involving the neighbouring forces of two fronts, the high command may assume direct control over the armies' operations, in order to more effectively coordinate their actions. In the majority of cases, however, the front commander will assign his subordinate armies initial objectives to a depth of 100 kilometers, or through the enemy's operational defence. Upon achieving this initial task, the army commander will then receive additional orders as to the operation's subsequent development. Within the framework of the front commander's instructions, the several army commanders enjoy considerable freedom of action, in theory, in allotting forces and missions to subordinate units, both for the breakthrough and the subsequent development phases.¹⁵⁷

A number of Red Army theorists continued to subsume the front and the front operation under the rubric of strategy, rather than operational art, a terminological holdover from the late imperial era. One of the most influential of these was Isserson, who called the front a 'formation of a strategic order', and who considered the army the sole operational unit.¹⁵⁸ Varfolomeev did not address this question directly, although his writings provide some interesting insights as to the place of front operations in the strategic sphere.

Varfolomeev believed, as had Triandafillov, that in order to achieve a decisive success, an operation must be launched along a

¹⁵⁶ Varfolomeev, Udarnaia, p. 172.

¹⁵⁷ Ibid, pp. 188-89.

¹⁵⁸ Isserson, Osnovy, p. 24.

sufficiently broad front. His solution was to group several shock armies into what he called a 'shock front' (*udarnyi front*), calculating that an offensive of this magnitude would not only absorb a large number of enemy reserves, but would enable the front to launch deep attacks along intersecting axes to encircle the defender's forces still at the front.¹⁵⁹ The existence of a shock front presupposes the existence of other, passive, fronts, or those playing an auxiliary role to the main offensive in a theatre of military activities, much as secondary corps and armies in army and front operations. This form was successfully employed by the Red Army on a number of occasions during World War II, as during the Stalingrad counteroffensive of November 1942, when the Southwestern and Stalingrad fronts struck the Axis defenders along both flanks, while the Don Front pinned the enemy down north of the city. Even more impressive is the example of the Belorussian strategic operation of 1944, which involved four fronts. Here the First Baltic, First and Third Belorussian fronts carried out shock missions, with the Second Belorussian Front consigned to an supporting role.

Other proposals for the organisation and employment of the front were put forward during these years. Among the most interesting was that drawn up by the staff of the Urals Military District, which was commanded between 1935 and 1937 by I.I. Gar'kavyi, a former tsarist lieutenant.

The staff's report clearly saw the front as a strategic factor, capable of operating independently in a given theatre of military activities. The front might consist of several field armies; a 'cavalry-mechanised army'; large airborne units; heavy and light aviation; tank, engineering, artillery, chemical and transport units, as well as front reserves up to a rifle corps in strength. In certain cases, depending upon geographical conditions, the front might even include such non-traditional units as river flotillas and even a fleet, if operating along a maritime axis. Such a concentra-

¹⁵⁹ Varfolomeev, *Udarnaia*, pp. 173, 181.

tion of force, the authors maintained, would enable the front to conduct a series of consecutive operations to a depth of 300-400 kilometers over a month or more, during which time its mobile formations might advance at times as much as 50 kilometers per day.¹⁶⁰

It is clear from this description that the staff's notion of the front's role differed little in organisation, with the exception of purely technological changes, from that of Leer and Neznamov. In fact, the authors' idea of the front's spatial responsibilities had more in common with earlier ideas of a single front occupying an entire theatre of military activities than with the smaller, strictly operational force it would become during World War II. In other respects, particularly as regards the subordination of naval units to the ground forces commander, the staff's projected front recalls the breadth of Kuropatkin's responsibilities in 1904-05, as well as certain aspects of the Red Army's creation of strategic 'theatre' commands in 1941-42 and 1945. Here, as in other areas, the Soviets clearly overestimated their capabilities, particularly as concerns the battlefield control of such an enormous force.

The authors did prove more prescient in forecasting the actions of certain of the front's subordinate units during an offensive; foremost the aforementioned cavalry-mechanised army (*konno-mekhanizirovannaiia armiia*). The cavalry-mechanised army was, according to the report, a powerful force which might include as many as two mechanised corps; one or two cavalry corps; two motorised divisions; a brigade of medium tanks; two to three air brigades; plus additional artillery, chemical and engineering troops, and was clearly designed for mobile operations in depth.¹⁶¹ However, unlike the shock army, which it resembled in all but name, it was not intended that the cavalry-mechanised army carry out a breakthrough on its own. Rather, the army would be held in reserve as the front's mobile group, to be committed following a breakthrough by one of the regular field

¹⁶⁰ TsGASA, fond 37977, opis' 4, delo 258, pp. 123, 125-26.

¹⁶¹ *Ibid*, pp. 134, 138.

armies, in much the same way that a mechanised corps would serve the same purpose for its parent shock army. Once committed, the cavalry-mechanised army, in conjunction with the front's other armies, or a similar army from another front, would be able to carry out large-scale encirclements of the defender's front-line troops.

The idea of the cavalry-mechanised army had its genesis in the mounted arm's traditional exploitation role, although now on a much greater and technologically more advanced scale. A more recent source of inspiration was Budennyi's cavalry army and its dash from the Kakhovka bridgehead in 1920 as the Southern Front's mobile group. The cavalry-mechanised army did not appear as such during World War II, but was transformed into the even more powerful tank armies, which served as the fronts' mobile group in a number of major operations. The Red Army did create several smaller formations, known as 'cavalry-mechanised groups' (*konno-mekhanizirovannye gruppy*), consisting of cavalry, tank and mechanised units, which were used extensively to exploit front breakthroughs during 1944-45.

Finally, the most forlorn branch of operational art during these years was, as always, the defensive operation. The subject received only passing attention from the army's leading theorists, who generally confined themselves to such generalities as stressing the heavily anti-tank nature of modern defence and the need to maintain adequate reserves to repel an attack.¹⁶² For example, the army's leading theoretical journal, *War and Revolution*, published only a single article dealing with defence at the operational level during the period in question. In it, the author made the standard Soviet division of defence into two types, planned and forced, depending upon the decisions of one's own high command and the enemy's actions. Either form could be employed actively or passively, although the author considered a passive defence more likely in those cases in which the army is forced to defend. The author, A. Anisov, considered the active variant superior, because it gave the defender

¹⁶² TsGASA, fond 37977, opis' 3, delo 368, pp. 1006-08; Varfolomeev, 'Operativnoe', p. 2.

more time to organise and carry out the necessary measures, while the latter form suffered from its hurried and *ad hoc* character, generally as the result of a previous failure.¹⁶³

Anisov divided the army's defence into three main zones. The first was the tactical zone, consisting of two defensive belts. The first of these extended back some six kilometers from the front line, and the second was located ten to 12 kilometers back. The tactical zone, despite its designation, was the backbone of the army's defence, and contained its main forces and most of its anti-tank weapons. Behind this lay the operational zone, extending some 75 kilometers behind the front. This area contained the army's reserves, supply routes, and the greater part of its organic air power. Behind this was a further rear zone, which contained supply depots, bomber airfields, deep army and front reserves, as well as, in some cases, a fortified rear army defensive line. This zone would also contain the army and, sometimes even, front headquarters.¹⁶⁴

The author put forward two proposals for conducting defensive operations. The first relied on a positional approach and was more or less static. It would be employed to hold particularly important areas whose retention was vital. One method was to heavily reinforce the tactical zone with reserves and attached units, in order to prevent an enemy breakthrough from the very outset. A more active approach involved launching a preemptive attack against the enemy's penetrations, using tank and artillery units already concentrated in the tactical zone, as well as reserves from the army rear. Anisov believed that this would either thwart the enemy's offensive preparations altogether, or at least force him to postpone his attack. However, should these measures fail and the enemy nonetheless penetrates the tactical zone, the army commander is to order a withdrawal to a new position, while continuing to counterattack, in order to

¹⁶³ A. Anisov, 'Armeiskaia Oboronitel'naia Operatsiia' [The Army Defensive Operation], *V&R* (1934), Nov.-Dec., pp. 40-41.

¹⁶⁴ *Ibid*, p. 44.

slow the enemy's advance.¹⁶⁵

The second proposal was less concerned with holding the tactical zone and more with pinning down enemy forces and winning time for one's offensive endeavors on other portions of the front. In this case, as a rule, the front would be lightly held, with some sectors manned by covering forces only. Much more important is the army reserve, which contains the bulk of the army's mobile and attached units. This reserve would be echeloned in depth in the operational defence zone, from which it could be quickly concentrated and dispatched to the front to bolster the tactical defence, by launching counterattacks to ease enemy pressure. Should the attacker nevertheless succeed in breaking through, the reserve units would cover the retreat to a new position by repeatedly counterattacking the pursuing forces.¹⁶⁶

Significantly, none of the works from this period had anything to say about defensive operations at the front level, whether viewed through the prism of strategy or operational art. Indeed, strategic defence, much as its counterpart on the operational level, was woefully ignored during this period and beyond; a neglect which was to have near-fatal consequences for the Red Army in 1941-42. Entire Soviet armies were encircled and destroyed in the Wehrmacht's 1941 summer and fall offensives, although in many cases this was due to incompetence at the strategic level. Although the Red Army performed appreciably better in the defensive fighting of 1942, it nevertheless surrendered vast territories to the enemy and only recovered when the German advance faltered for logistical reasons. In fact, it was not until the Battle of Kursk, in the summer of 1943, that the Soviets finally succeeded in constructing an operational-strategic defensive system capable of halting the German army's attack.

The locus of the Red Army's work on the deep operation and other aspects of operational art during these years was the expanding

¹⁶⁵ Ibid, p. 45.

¹⁶⁶ Ibid, pp. 47-48.

network of military-educational establishments which were springing up around the country. Chief among these until 1936 was the Frunze Military Academy, which was headed during this period by R.P. Eideman (1925-32), who had been a junior officer in the tsarist army; Shaposhnikov (1932-35), a former colonel and 1910 graduate of the imperial General Staff Academy, and ; A.I. Kork (1935-37), a former captain and 1914 graduate. Other important institutions included the RKKA Military Academy of Mechanisation and Motorisation, and the RKKA Military-Chemical Academy, both established in 1932.

The Frunze Academy, despite periodic campaigns against such unorthodox thinkers as Svechin and Verkhovskii, continued its efforts to turn out graduates versed in the ways of modern war. During the 1930s these increasingly took the form of investigating and disseminating the new theories of the deep battle and operation. The large numbers of tanks and other weapons then entering the army's arsenal lent an additional impetus to this search, so that as early as 1930 students were studying the fundamentals of the deep battle on the basis of the 1929 field manual and were conducting map and field exercises on the theme.¹⁶⁷

However, the academy's increasingly tactical orientation was insufficient to further the development of operational thought, and in the summer of 1931 an operational department (*operativnyi fakul'tet*) was established as an adjunct to the academy. The department offered a one-year course of study to exceptional graduates to prepare them for staff work at the corps-army-front (military district) level, as well as within the RKKA Staff. The course consisted chiefly of lectures on the developing theory of the deep operation, as well as more practical exercises, such as war games. Isserson was appointed the first head of the department, which included among the faculty the imperial General Staff Academy graduate A.K. Kolenkovskii, as well as a number of former tsarist officers such as S.N. Krasil'nikov and A.N. Lapchinskii. The department, during its brief

¹⁶⁷ Kazakov, p. 24; Isserson, 'Razvitie', no. 1, p. 38.

existence, was able to make a significant contribution to forming the next generation of high-ranking staff officers. Among its graduates were the future chiefs of staff A.I. Antonov and M.V. Zakharov.¹⁶⁸

However, the department's limited facilities could not keep up with the army's growing demand for trained operational cadres. The high command sought to fill this need by establishing, on the basis of the operational department, a new General Staff Academy, in the autumn of 1936. D.A. Kuchinskii, a former tsarist officer, was appointed to head the academy, which included among the faculty such graduates from its imperial predecessor as Svechin, Verkhovskii, Shilovskii, A.I. Gotovtsev, F.P. Shafalovich and others.¹⁶⁹

The academy initially consisted of five departments: army operations, renamed the department of operational art in 1937; the tactics of higher formations; organisation and mobilisation; military history; and, foreign languages. The jewel in the academy's crown was the department of army operations, which embraced the army and front, the theory of military strategy, independent air operations, and land-sea operations. The department was headed by Isserson, whose students spent most of their time studying army and front operations through lectures and map exercises. Among the exercises conducted that first year were those on such themes as 'Conducting a Front Offensive Operation in the Western Theatre of Military Activities'; 'The Actions of the Breakthrough Development Echelon in a Front Offensive Operation'; 'Breaking Through a Prepared Defence', and 'The Commitment of a Mechanised Corps into Battle'.¹⁷⁰

A serious drawback in the academy's course of instruction was the lack of a concrete course in strategy, which might have served as the theoretical underpinning for further operational research. This

¹⁶⁸ Bulgakova, pp. 26-27; Isserson, 'Razvitie', no. 1, p. 44; V.G. Kulikov, ed., Akademiia General'nogo Shtaba [The General Staff Academy] (Moscow, 1976), p. 41.

¹⁶⁹ Kulikov, p. 40; Bulgakova, p. 27.

¹⁷⁰ Kulikov, pp. 45-46; Bulgakova, p. 33; Kazakov, p. 38; Vasilevskii, p. 92.

was a particularly damaging omission, as the front operation was still viewed by many at the time as an instrument of strategy. However, when Kuchinskii approached Egorov about the possibility of instituting such a course at the academy, he was rudely cut off by the marshal and informed that strategic questions were the sole prerogative of the General Staff.¹⁷¹

Despite these and other shortcomings, the academy was, overall, successful in developing and spreading the tenets of the deep operation and raising the theory to a level consistent with, if not above, the degree of mechanisation achieved in the army by 1936. The students of the first intake, in this respect, were particularly distinguished and many of them went on to achieve fame during World War II and after. These included the wartime chiefs of staff A.M. Vasilevskii and A.I. Antonov; the front commanders I.Kh. Bagramian, N.F. Vatutin, L.A. Govorov and P.A. Kurochkin, as well as several front chiefs of staff, army commanders and other high-ranking officers in the central military apparatus.¹⁷²

The Soviets also tested the theoretical concepts in a number of large-scale maneuvers. One of the largest of these was held in September 1935 in the Kiev Military District, and involved some 65,000 men, 3,000 vehicles, including 1,040 tanks, 600 aircraft and 300 artillery pieces. The maneuvers began with an attack by the 'blue' army towards Kiev, combined with an airborne landing east of the city. The attackers succeeded in breaking through the 'red' army's defences west of Kiev, whereupon they committed a cavalry-mechanised group into the breach to develop the success. This movement advanced rapidly until it was finally halted just short of Kiev. The defenders then launched a counterattack, spearheaded by a mechanised corps, which was able to turn the attacker's exposed flank and break into his rear area. The maneuvers were also noteworthy for the combined parachute-airborne landing of two rifle regiments and

¹⁷¹ Isserson, 'Razvitie', no. 3, pp. 49-50; Bagramian, p. 157.

¹⁷² Vasilevskii, p. 93.

equipment.¹⁷³

The deep operation was further tested a year later during maneuvers in the Belorussian Military District. A total of 85,000 troops, 1,136 tanks, 580 guns and 638 aircraft took part in the exercise, designed to test the army's operational concepts for the outbreak of a war along the western frontier. Details are sketchy, although two airborne brigades were dropped during the maneuvers, in which Isserson and such famous wartime commanders as G.K. Zhukov, I.S. Konev and R.Ia. Malinovskii took part.¹⁷⁴

By 1936-37 the basic precepts of the deep operation were firmly established in the Red Army, at least at the theoretical level. This was, overall, a triumph of Soviet military thinking and indicative of how far intellectually the army had come in the two decades since the revolution. Moreover, it was a theory which was very much the product of Soviet circumstances, chief among which was the country's momentous industrialisation drive, which transformed the army and which had no counterpart in the tsarist era. Another was the changing composition of the theoretical cadres during this period and the clear dominance of such impeccably Soviet writers as Isserson, whose talents came to full fruition in the 1930s.

This is not to say that the former military specialists were by any means excluded from the theory's development. As we have seen, former officers and graduates of the old General Staff Academy, such as Varfolomeev and Shilovskii, made important contributions to this work, while other former officers, such as Tukhachevskii, made important contributions as well.¹⁷⁵ On the whole, these tended to be younger men who had graduated from the academy or entered the tsarist army not long before the revolution and who had adapted themselves to the new order without much difficulty. In this re-

¹⁷³ A.M. Degtiarev, ed., Kievskii Krasnoznamennyi [Kiev Red Banner] (Moscow, 1974), pp. 102-03; A.I. Eremenko, V Nachale Voiny [In the Beginning of the War] (Moscow, 1965), pp. 8-11.

¹⁷⁴ Zakharov, General'nyi, p. 101.

¹⁷⁵ Isserson, 'Razvitie', no. 1, p. 42.

spect, they remained poles apart from Svechin and others like him, who essentially remained products of the old regime, and whose influence declined sharply during the decade.

EPILOGUE

For more than two years the armed forces had managed to escape much of the horror which Stalin's great purge was visiting on other areas of society. However, the logic of dictatorship decreed that this situation could not continue indefinitely, and on 14 June 1937 the country was stunned to learn that a 'treasonous, counterrevolutionary, military fascist organisation' had been uncovered within the Red Army. The announcement went on to report that a group of high-ranking officers, led by Marshal Tukhachevskii, had confessed to charges of treason before a special military tribunal. 'The loathsome traitors', the announcement continued, had been found guilty and executed.¹

However, this was only the beginning, as the full power of the Stalinist terror machine was now turned against the armed forces. By the time the bloodletting subsided somewhat in the autumn of 1938, more than 40,000 people had been 'purged' from the army.² And

¹ K.E. Voroshilov, 'Prikaz Narodnogo Komissara Oborony SSSR' [Order of the USSR People's Defense Commissar], *Krasnaia Zvezda* (Moscow), 14 June 1937, p. 1. The other victims were I.P. Uborevich, commander of the Belorussian Military District; I.E. Iakir, commander of the Kiev Military District; A.I. Kork, head of the Frunze Military Academy; R.P. Eideman, chairman of the Osoaviakhim civil-military organization; B.M. Fel'dman, chief of the RKKA Main Administration; V.M. Primakov, deputy commander of the Leningrad Military District; and, V.K. Putna, most recently military attache in Great Britain. Ia.B. Gamarnik, head of the RKKA Political Directorate, was to have been part of this group, but he committed suicide before his arrest.

² D.A. Volkogonov, *Triumf i Tragediia. Politicheskii Portret I.V. Stalina* [Triumph and Tragedy. A Political Portrait of I.V. Stalin], 2nd ed. (Moscow, 1990), I. 513. This source cites as a source for this figure a Voroshilov speech at the end of November 1938. Another source supports this figure and claims that during 1937-38 more than 35,000 officers were 'dismissed' from the ground forces, 3,000 from the navy, and more than 5,000 from the air force. See V.V. Karpov, *Marshal Zhukov. Ego Soratniki i Protivniki v Dni Voyny i Mira* [Marshal Zhukov. His Comrades-in-Arms and Enemies in Times of War and Peace] (Moscow, 1992), p. 74. Another source mentions the figure of 35,000 victims in the officer corps. See W.G. Krivitsky, *In Stalin's Secret Service* (New York, 1939), p. 232. Erickson (p. 506) puts the loss at 20-25,000 men out of a pre-purge officer corps of 75-80,000, while a recent Soviet article puts the total number of officers in the RKKA at the time at slightly over 106,000 men. See O.F. Suvenirov, 'Vsearmeiskaia Tragediia' [An Army-Wide Tragedy], *V-IZh* (1989), no. 3, p. 39.

although to be purged was not necessarily synonymous with death, it can safely be assumed that most of this period's victims were either shot outright or died subsequently in labour camps.

The purge took an especially heavy toll of the senior and mid-level commanders, including two more marshals, Egorov and Bliukher. Among the other victims were all 11 deputy defence commissars and 75 of the Military Council's 80 members.³ Of the military district commanders, all but Budennyi were removed, and some military districts, such as the Belorussian, suffered the loss of two commanders. Among other prominent victims were air force commander Ia.Ia. Alksnis and, in quick succession, the navy chiefs V.M. Orlov, M.V. Viktorov and P.A. Smirnov. In fact, the purge hit the navy so hard that M.P. Frinovskii, a veteran NKVD thug, was temporarily placed in command, until he too perished.

In all, three of five marshals were executed, leaving only the military non-entities Voroshilov and Budennyi. Both fleet admirals were 'repressed' during this time, as were both admirals, all six vice-admirals, and nine of 15 rear-admirals. Of four army commanders first class, two were repressed, as were all 12 army commanders second class. 60 of 67 corps commanders fell in the purge, as did 136 of 199 division commanders and 221 of 397 brigade commanders. The political organs suffered no less severely. Both army commissars first class became victims, as did all 15 commissars second class, and 25 of 28 corps commissars. Of 97 division commissars, 79 suffered, as did 34 of 36 brigade commissars.⁴

Stalin's bloodlust even extended to the wives and children of the purged commanders, many of whom endured long prison sentences and worse, following their husbands' deaths. In a grisly but not uncommon example, the wives of Tukhachevskii, Uborevich and Gamarnik were

³ Erickson, p. 505.

⁴ Karpov, p. 73; Suvenirov, p. 41. Both sources cite the late A.I. Todorskii, whose breakdown of the victims by rank has become standard among Russian-Soviet historians.

executed in the prison at Orel in July 1941.⁵

The massive bloodletting seriously disrupted the Red Army's continuity of development in every realm, particularly in the area of command cadres. During 1937-38 all but one of the military district commanders, all of their deputies and military district chiefs of staff were replaced, as were 88% of the corps commanders and 100% of their deputies. Of the division and brigade commanders, 99% were replaced, as were 79% of regimental commanders, 88% of the regimental chiefs of staff, and 87% of all battalion commanders.⁶ By the beginning of 1940 some 70% of division and regimental commanders had been at their posts for only a year.⁷ The army had been effectively beheaded and an entire generation of experienced commanders removed, to be replaced by officers who often lacked the necessary practical and theoretical training for their jobs. N.G. Kuznetsov, for example, became head of the Soviet navy in 1939, at the age of 37. The wastage was so severe in other areas that several of the new General Staff Academy's first-year students had their studies interrupted and were assigned to posts far above their previous stations.⁸ Many of the new commanders' shortcomings quickly became apparent and were to a great extent responsible for many of the disasters which befell the Red Army at the beginning of the German invasion in 1941.

The purge indiscriminately cut down military specialists and red commanders alike. Among the many victims were such former tsarist officers as A.I. Gekker, V.M. Gittis, V.I. Shorin, N.N. Petin and others who had joined the army during the Civil War. Equally unfortunate were those commanders with impeccably proletarian credentials, such as I.P. Belov, P.E. Dybenko, A.I. Sediakin, and G.D. Gai.

⁵ N.M. Iakupov, Tragediia Polkovodtsev [The Tragedy of the Commanders] (Moscow, 1992), p. 304.

⁶ Karpov, pp. 75-76.

⁷ P.N. Pospelov, ed., Velikaia Otechestvennaia Voina Sovetskogo Soiuz, 1941-1945. Kratkaia Istoriia [The Great Patriotic War of the Soviet Union, 1941-1945. A Short History] (Moscow, 1965), p. 40.

⁸ Zakharov, General'nyi, pp. 52-53; Vasilevskii, pp. 93-94; Sandalov, pp. 22-23; Kazakov, pp. 40-41.

Others, such as K.K. Rokossovskii, K.A. Meretskov, and A.V. Gorbatoev were luckier; they were imprisoned and, in some cases, tortured, but managed to escape execution. They were released and, in spite of their treatment, went on to enjoy distinguished careers during World War II.⁹ Zhukov himself barely escaped arrest, but survived to rise from the rank of cavalry division commander to Chief of the General Staff in less than four years.¹⁰

The purge struck the army's intellectual cadres particularly hard. D.A. Kuchinskii, the first head of the General Staff Academy, was arrested in 1937 and died the following year. Another prominent victim was I.I. Vatsetis, the Red Army's first commander-in-chief, who was arrested during a lecture break at the Frunze Military Academy in 1937 and shot a year later.¹¹ Among the other victims were many who had done much to enrich Soviet military thinking, such as Verkhovskii, Movchin and Svechin, the latter of whom outlived his arch-rival Tukhachevskii by only a year. Varfolomeev was arrested somewhat later and was executed in prison in October 1941, alongside such high-ranking commanders as G.M. Shtern and Ia.V. Smushkevich.

The consequences for the development of military theory were devastating, particularly in the field of operations, where many of those who were repressed had made their mark. In a typical piece of Stalinist guilt by association, the execution of Tukhachevskii and other 'enemies of the people' was sufficient to bring their theories under suspicion. Isserson, one of the lucky survivors, recalled that many of the most progressive theorists' writings were denounced and removed from circulation, while in the General Staff Academy the very

⁹ For an interesting account of his arrest, imprisonment, transportation and release, see A.V. Gorbatoev's Gody i Voyny [Years and Wars] (Moscow, 1965), pp. 126-72. Unfortunately, neither Rokossovskii's nor Meretskov's memoirs, released during the Brezhnev years, mentions these events.

¹⁰ The details of Zhukov's narrow escape became known only in the later, glasnost'-era editions of his memoirs. See Zhukov, I. 241-44. For another version, see K.M. Simonov, 'Zametki k Biografii G.K. Zhukova' [Notes on a Biography of G.K. Zhukov], V-IZh (1987), no. 6, p. 54.

¹¹ A.T. Stuchenko, Zavidnaia Nasha Sud'ba [Our Envidable Fate] (Moscow, 1964), p. 63. This passage and other mentions of the purge were omitted from the 1968 edition.

fundamentals of the deep operation were viewed with suspicion.¹² Isserson himself continued to lecture furtively on the subject, although he did not dare to mention the deep operation by name. A student of Isserson's later recalled that 'great bravery' was required of the advocates of the deep operation, the teaching of which remained all but anathema until 1940.¹³

¹² Isserson, 'Razvitie', no. 3, pp. 54-55. The deep operation's return to favour was signaled by the appearance of Isserson's new book New Forms of Battle, in 1940.

¹³ P. Grigorenko, V Podpol'e Mozhno Vstretit' Tol'ko Krys [In the Underground One Meets Only Rats] (New York, 1981), p. 212.

CONCLUSIONS

Stalin's destruction of the veteran cadres and the transformation of the armed forces into the regime's cowed tool, marks a decisive break with the army's revolutionary past, as bloody and traumatic as the events leading to its creation in 1918. It is also the logical vantage point from which to view the evolution of operational theory during the preceding third of a century, as this development relates to the dissertation's central thesis--the degree of continuity in Russian-Soviet operational art. This will be done by examining the theory's development over the course of the 1904-37 period.

In evaluating the late-tsarist army's views on operations, certain dominant themes emerge which, taken together, form a recognizable, if nascent, body of operational thought. One of the most important of these involves the semantic evolution of the operation and the art of operations and their place in the hierarchy of military art. Operations during these years were usually viewed as a subset and tool of strategy for achieving strategic objectives in a theatre of military activities. Indeed, important areas of contemporary operational art, such as front operations, were seen as falling into the strategic realm, a trend which continued well into the 1930s. Nevertheless, important theoretical distinctions had been made, and these served as the point of departure when the debate resumed in the 1920s.

Not the least of that decade's accomplishments was the Red Army's liberation of operational art from the spheres of strategy and tactics and its recognition as a separate theoretical entity. The Soviets had inherited the tsarist army's terminological confusion as to the place of operations in the hierarchy of military art, and this was reflected initially in the army's academic offerings. However,

by the mid-1920s the situation had begun to change, and the current ranking of strategy, operational art and tactics came into being. This was due primarily to the efforts of Svechin and such younger former officers as Varfolomeev, whose theoretical influence in the Red Army was considerable, despite their less than auspicious social origins.

Easily the most observable line of continuity between the imperial army and its successor is the persistent notion of the front (group of armies) level of command, both in theory and practice. The growth of modern armies and the vast distances anticipated in a war in Eastern Europe compelled the Russians to adopt this form long before anyone else. Thus Leer's ruminations on a group of armies operating in a single theatre of military activities found concrete expression in the Russian army's 1900 war plan, which envisaged the creation of two fronts in the western theatre of war. Kuropatkin's armies in Manchuria constituted a front in everything but name, while such postwar theorists as Neznamov and Mikhnevich proceeded to refine the concept and its commander's responsibilities in relation to its subordinate armies and the high command. Thus was born the *Stavka*-front-army system of subordination, which remained a fixture of Soviet operational organisation for many years.

However, a major point of terminological ambiguity continued to dog the notion of the front for many years afterwards. This confusion had its origins in the imperial army's designation of the front as a force capable of performing strategic missions, was reflected in the army's 1900 and succeeding war plans, in which each front was given the strategic task of defeating a member of the enemy coalition. This system was adopted virtually without change during the Civil War, which saw the Red Army conduct a number of single-front operations along a theatre of military activities, or two fronts operating in tandem in a single theatre of war. The idea of the front as a strategic unit persisted well into the 1930s, which meant that for many years the army remained the sole operational formation. However, by the end of the decade the situation had changed, so that by

the time the USSR entered World War II the front instance of command had become firmly entrenched as a key aspect of operational art.

Another, if more tenuous, area of continuity between the two armies, lay in the area of conducting multiple operations. This possibility had been raised as early as 1911 by Neznamov, who, unfortunately, devoted little space to the subject other than emphasizing the likely need for them. It fell, instead, to the Red Army, which had the benefit of the examples of 1914 and 1920 to guide it, to devise a method for conducting extended operations in depth, and to determine what, if any, were the inherent limits of such operations. The result of this work was the theory of consecutive operations, in which one operation flows from and succeeds another in pursuit of a larger strategic objective. In this area, as in so many others, such former officers as Svechin, Varfolomeev, Movchin and Triandafillov played a major role.

Another of the imperial army's legacies had less to do with a particular tradition than with the vagaries of conducting operations along the extended fronts of Eastern Europe. This concerned the efficacy of launching major offensive efforts along sufficiently-broad frontages, in pursuit of a decisive result. Most of this experience was gained at first-hand, notably during Brusilov's 1916 offensive, which owed part of its success to the front commander's novel expedient of launching several, smaller supporting attacks along widely-separated sectors of the front in support of a more-concentrated main effort elsewhere. The method was adopted by the Red Army out of sheer necessity during the Civil War, given the extended fronts of that conflict. Postwar theorists developed this idea further in a number of historical studies which supported the idea of launching broad-front offensives.

Another, lesser, area of agreement include Neznamov's early division of the operation into offensive, meeting and defensive types. This delineation was picked up whole cloth by Red Army theorists, who grafted it, without substantial change, to the technologically more-proficient army of the 1930s.

However, despite the evidence of a good deal of theoretical and practical continuity between the two armies, there are significant areas of divergence as well, which involve the Red Army's ideological and technical composition.

The first quality set the Red Army decisively apart from its imperial predecessor, which was fairly apolitical. The ideological absolutes and political controls imposed upon the army created an ethos not disposed to recognize limits, and which could hardly have failed to have an impact on the nature of its military operations. Consequently, the political-military belief that the communist ideology represented the most dynamic historical forces naturally inclined the army towards offensive operations.

Whatever one may think of the Bolsheviks' political goals, there is nonetheless a refreshing vitality in the Red Army's conduct of Civil War operations. This stands in marked contrast to the Russian army's disgraceful performance in Manchuria and throughout much of World War I, and is evidence of the tsarist regime's overall decline as much as of any specifically military shortcomings. However, the Red Army's laudable preference for offensive operations was purchased at what later proved to be a stiff price. It is hardly surprising, given these muscular attitudes, that the army's study of defensive operations was seriously neglected, which carried over into all aspects of its post-Civil War strategy, operational art and tactics.

The other dissonant note is the Red Army's technical makeover in the 1930s, which also set it apart from its predecessor. The army, in recasting itself as a modern force, thus broke decisively with the tsarist tradition of technological inferiority vis a vis the West. By 1936-37 this process was substantially completed and the Red Army had become the equal of any of the major European powers, and its military might easily surpassed that of Nazi Germany, whose rearmament program was barely under way. This quantitative growth ushered in equally impressive changes in the armed forces' organization, and saw the introduction of such operationally-significant

formations as mechanised brigades and corps, which had no counterpart in the tsarist army.

The Red Army's transformation, from a force not markedly different in technical prowess from its tsarist predecessor, to a truly modern army also had profound effects on the development of its operational theory. This was most evident in what later became known as the deep operation, which sought to exploit the striking power and mobility of modern weapons to resolve the problem of breaking through a solid defensive front.

As the above shows, the task of determining the tsarist military legacy's relative weight in the formation of the Soviet theory of operational art is highly complex. The pre-revolutionary era, for obvious reasons, presents no problem in this respect, although a knowledge of the period's theoretical and practical developments is crucial to understanding what followed. Much the same is true concerning the Civil War, in which the contribution of the military specialists, both professional officers and those holding wartime commissions, was decisive to the Soviets' victory.

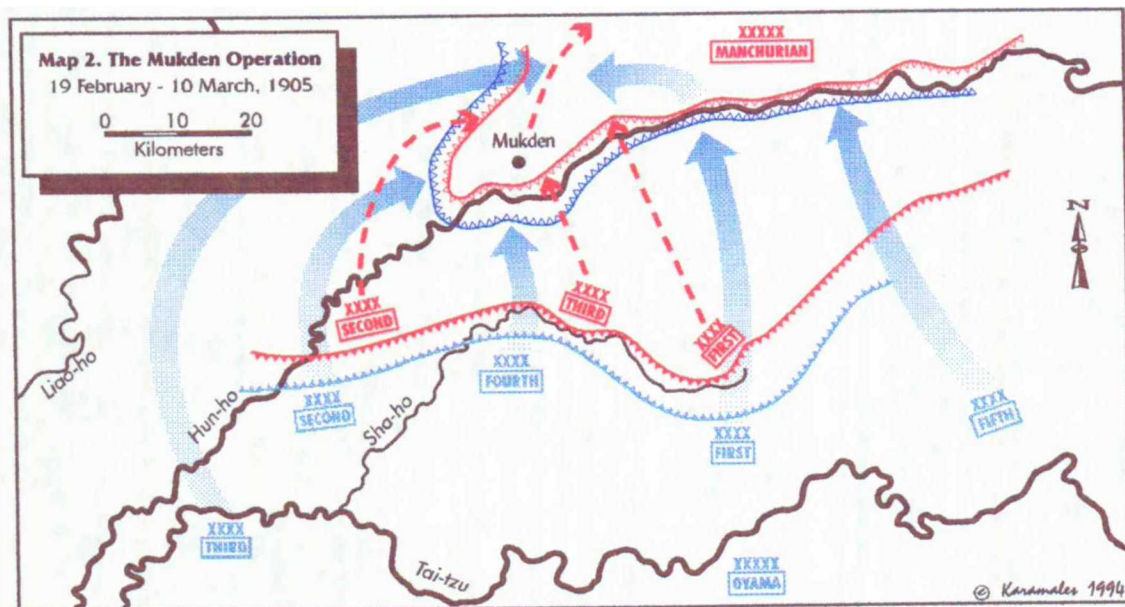
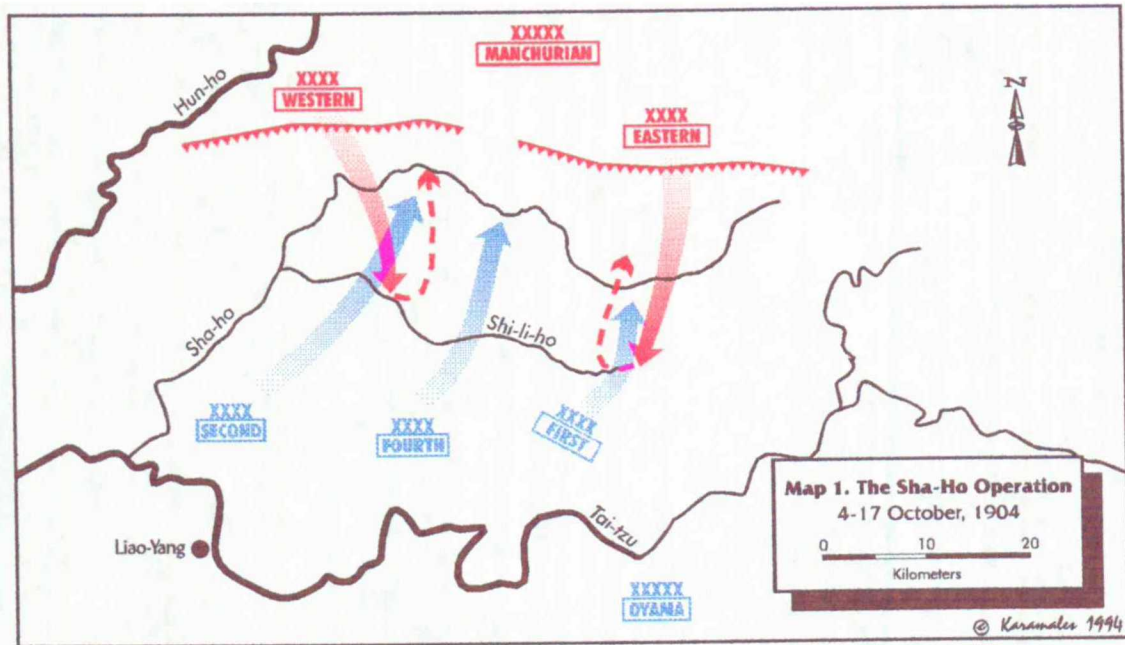
It is in studying the interwar period from 1921 to 1937 that the problem becomes more complicated, although the specialists' dominance in many areas is unmistakable. Thus even if one adheres to the dissertation's narrow definition of this group as consisting entirely of professional officers alone, the contribution of such men as Svechin, Shaposhnikov, Varfolomeev and Tukhachevskii, among others, to the development of Soviet operational thought is impressive. If one takes a broader view and includes among this group such former wartime officers as Triandafillov and Movchin, then the case for the former officers' dominance of military theory, particularly in the first postwar decade, becomes overwhelming, with only a very few exceptions, such as Frunze, to dispute their monopoly.

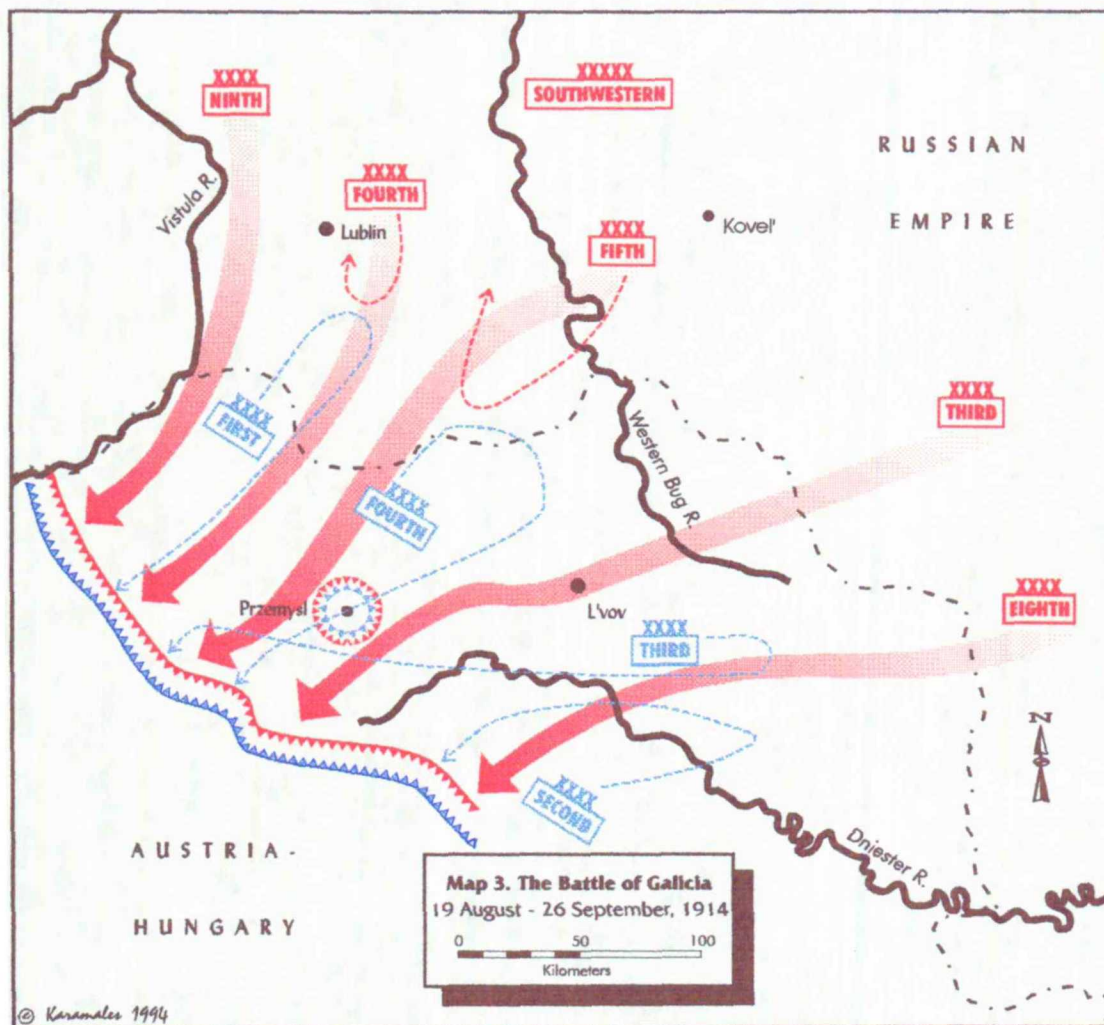
However, the older specialists' influence was already waning, even as the decade was coming to an end. This was due to a variety of reasons, the most obvious being the overall decline in the number of specialists in the army in the wake of the large reduction in

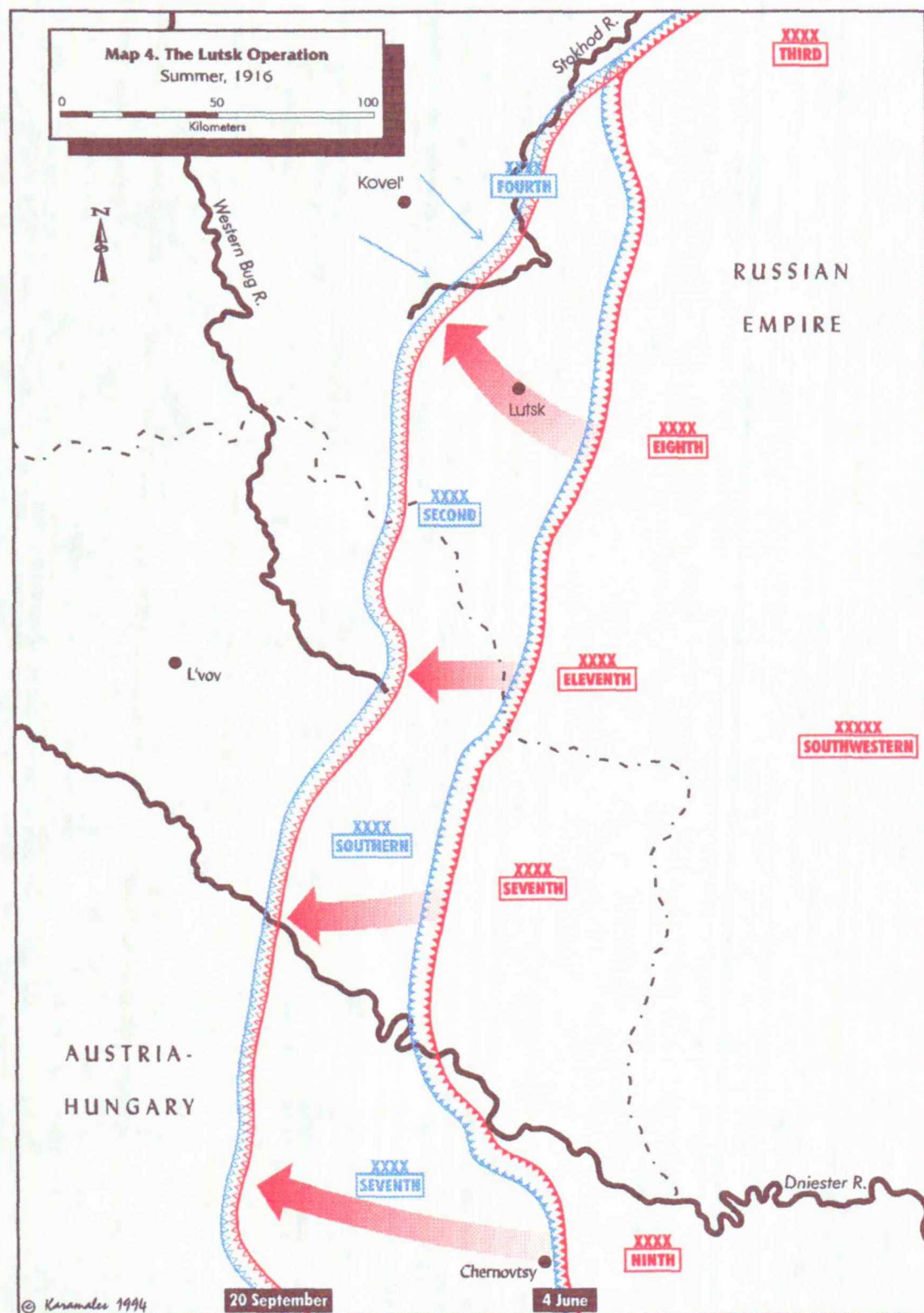
personnel after 1920. Another, more subtle, explanation lies in the changing technical character of the Red Army itself and the inability of many specialists, particularly of the older generation, to adapt to the new mechanisation era. This was becoming evident as early as 1929, and one need only compare the true specialist Kolenkovskii's The Offensive Operation of an Army as Part of a Front, with Triandafillov's The Character of Operations of Modern Armies, both of which appeared in that crucial year, to notice the sea change. Whereas the former deals with a Red Army not markedly different from its imperial predecessor, Triandafillov's groundbreaking work already envisaged a qualitatively new force based on the latest achievements in military technology. Kolenkovskii's failure was symbolic of a larger shift, and with the onset of widespread mechanisation within the armed forces the senior military specialists were increasingly relegated to the sidelines, although a few, such as Shaposhnikov continued to render command and staff valuable service. For the most part, however, it fell to such younger specialists as Tukhachevskii, Varfolomeev and Shilovskii, as well as such wholly Soviet products as Isserson, to rework the army's operational theory in accordance with its new capabilities. Thus the appearance of a new, mechanised Red Army heralded the breakdown of the old imperial-Soviet synthesis, as personified by the older military specialists, and their replacement by younger, more self-consciously Soviet, cadres. Likewise, while Soviet operational theory of the mid-1930s retained many features which linked it to the past, it was at the same time heavily obliged to exclusively Soviet circumstances for its birth and development.

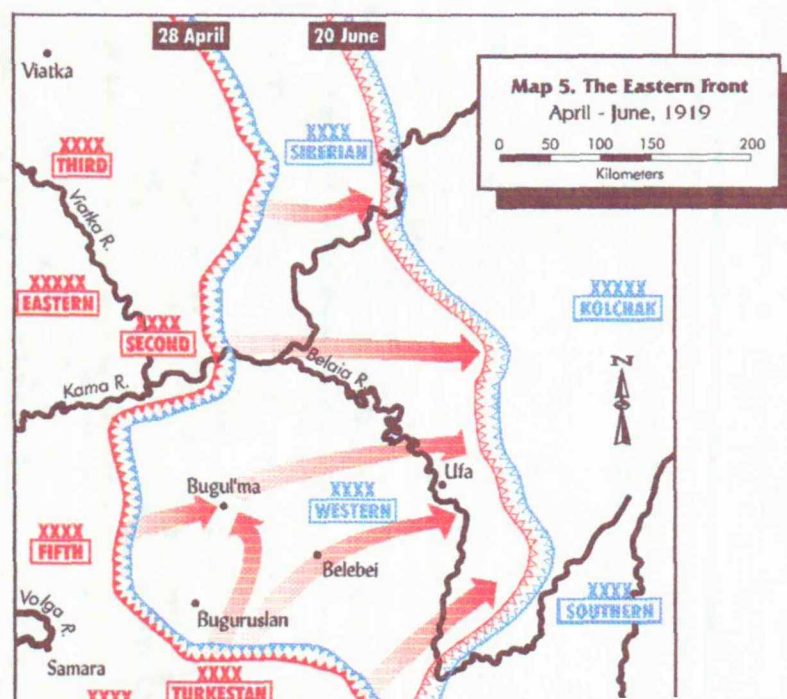
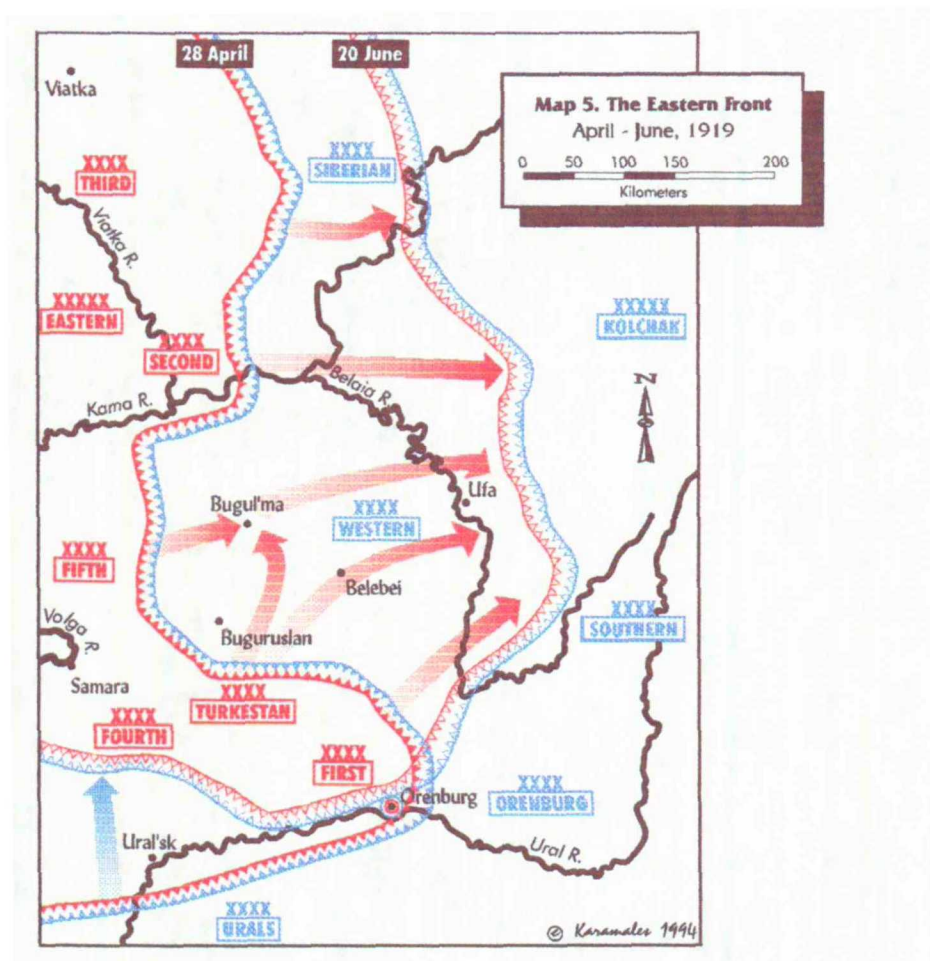
As we have seen, this period ended with the destruction of practically all the old specialist cadres, as well as a good portion of the non-specialist ranks, and their replacement with officers who, with a few exceptions, had no institutional connection with the old army and who were almost entirely unaware of its theoretical heritage. However, neither this precipitate end, nor the relative decline in the specialists' influence from the late 1920s, should obscure the influence of their ideas on the development of the Red

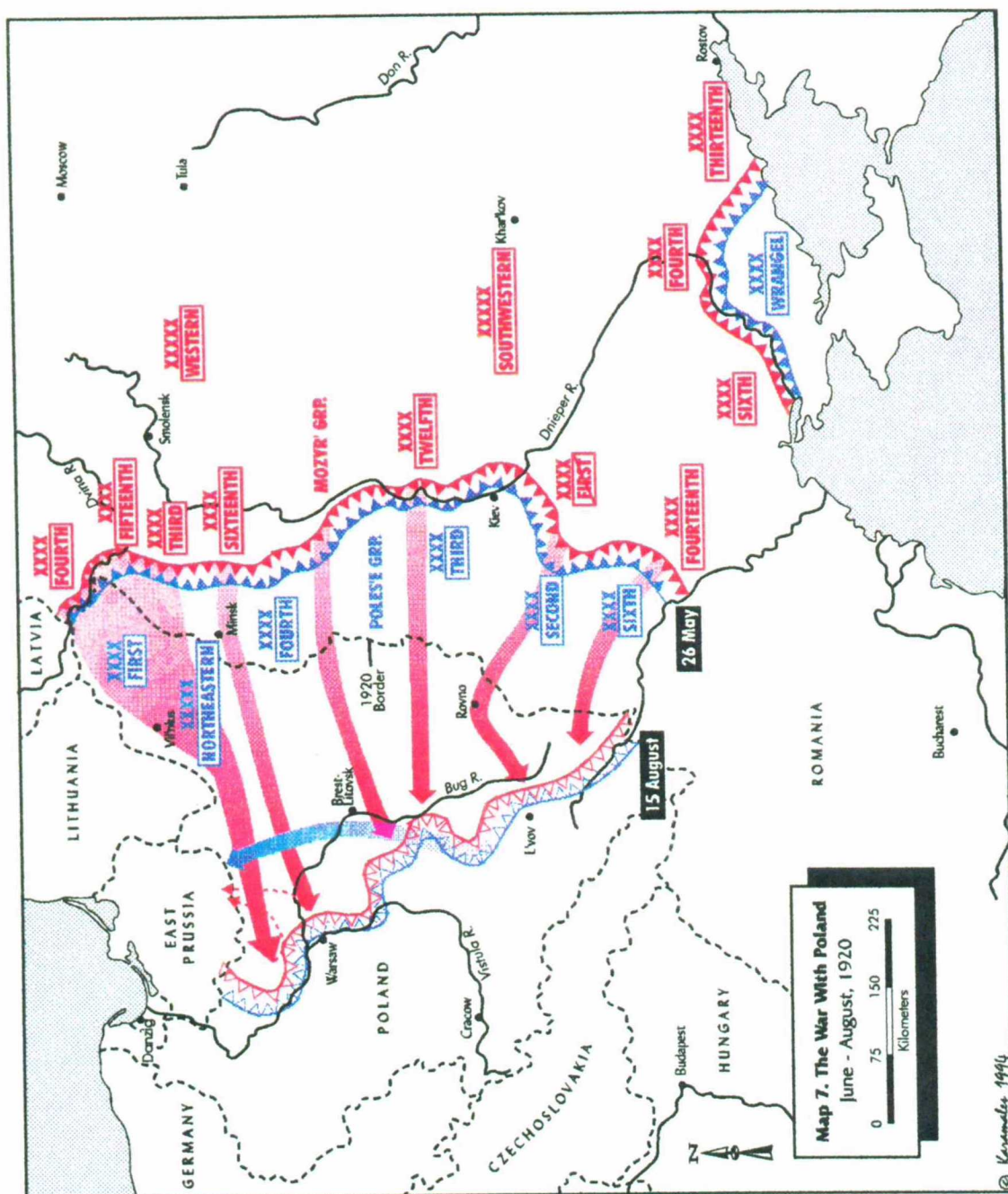
Army's theory of operational art. In fact, the evidence is overwhelming that the old army's influence was decisive to the ultimate result.

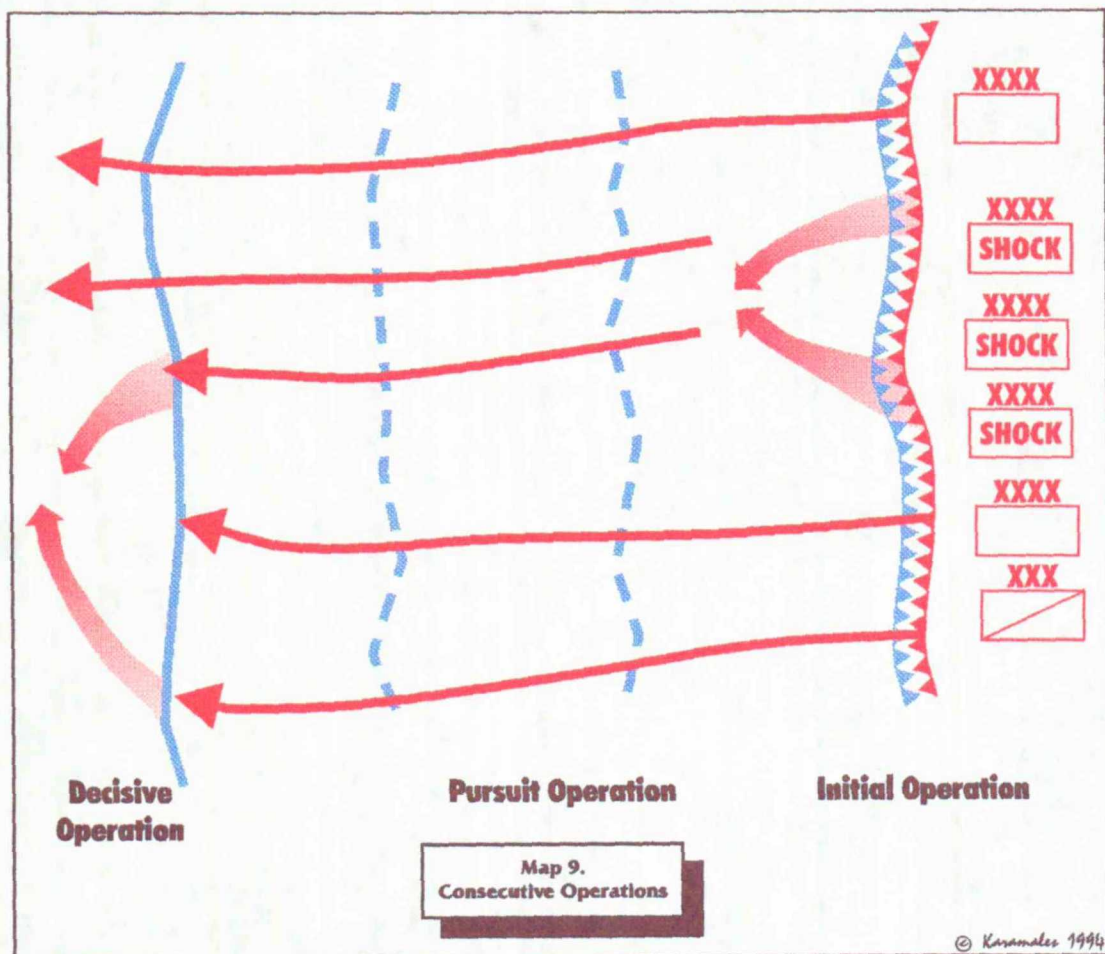
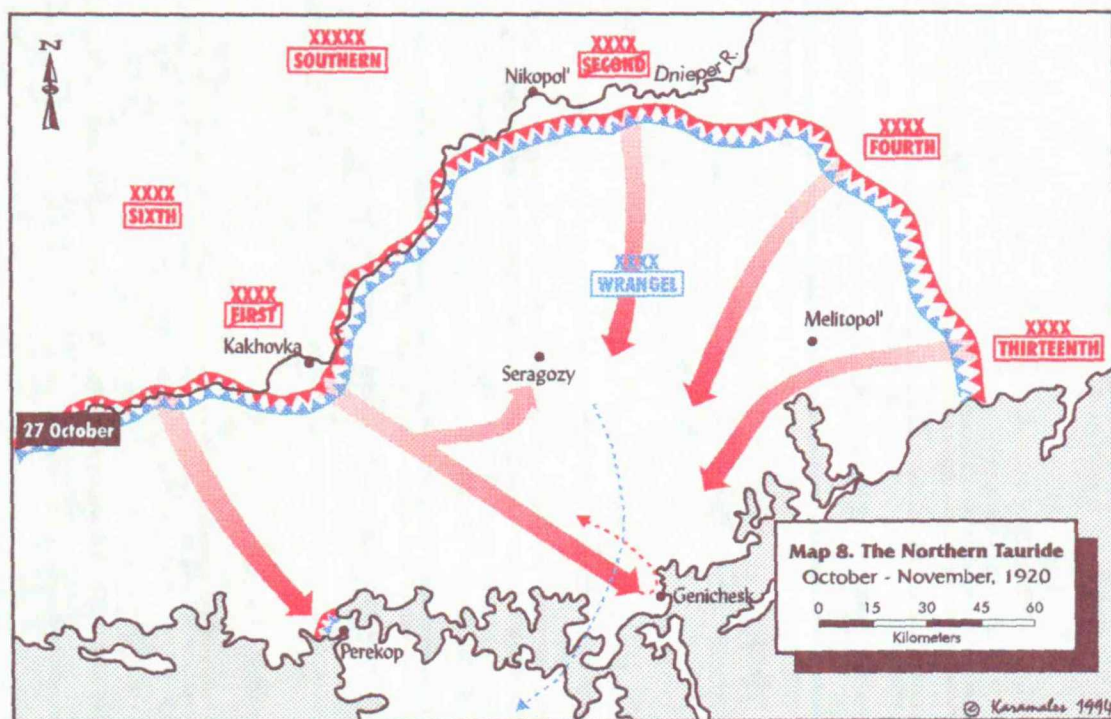


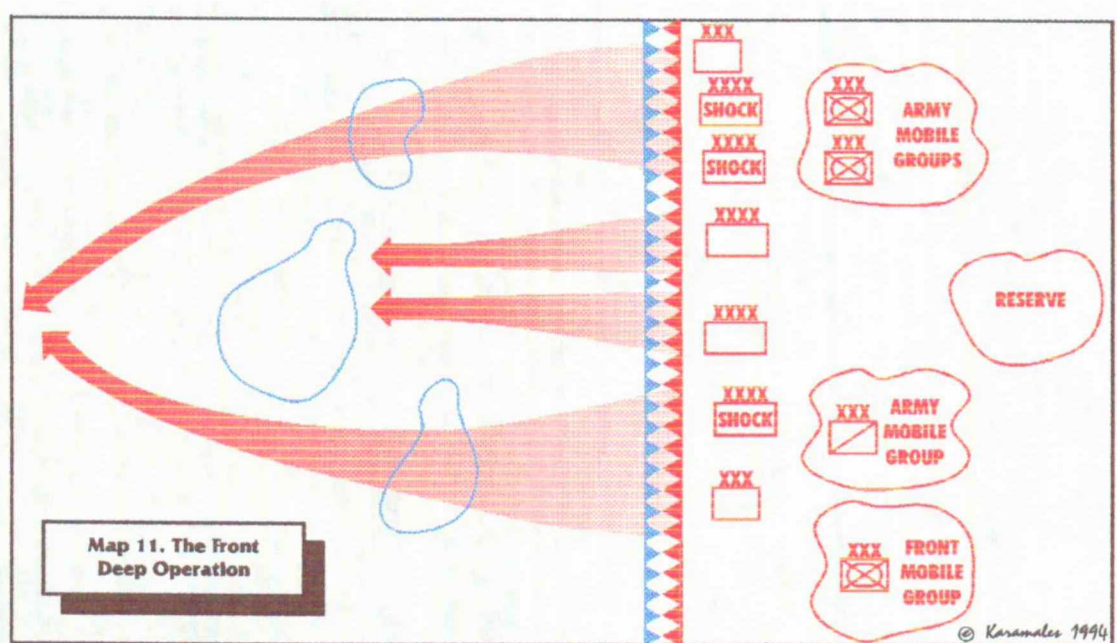
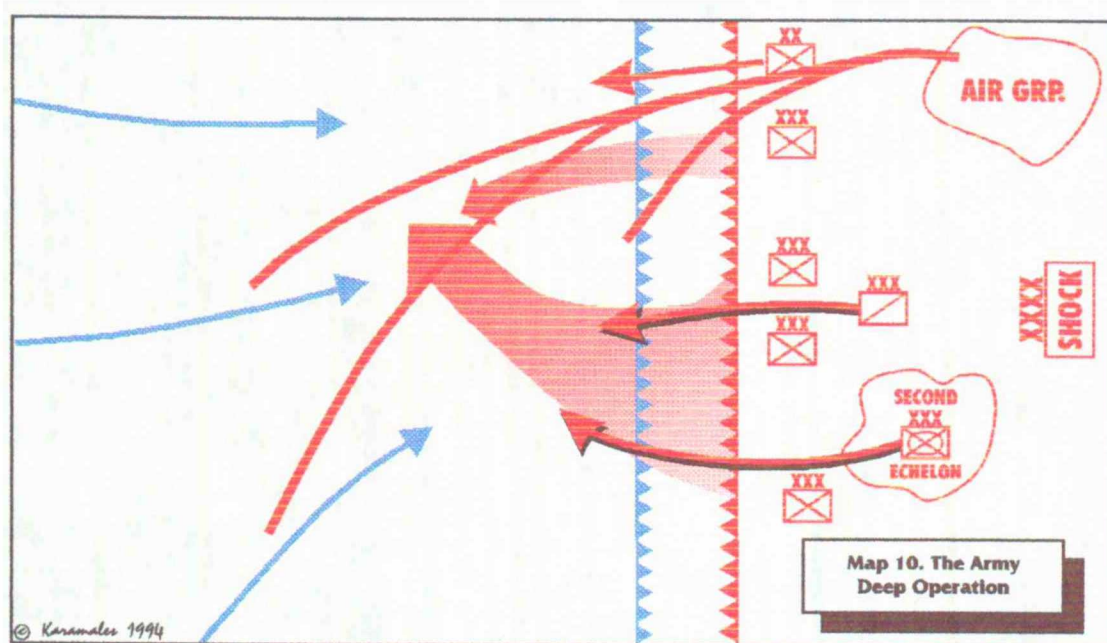












BIBLIOGRAPHY

I. Primary Material

A. Unpublished

Egorov, A.I. Tezisy Doklada 'Taktika i Operativnoe RKKA na Novom Etape' [Theses of the Report 'The RKKA's Tactics and Operational Art at a New Stage']. [Moscow], 1932. TsGASA, fond 31983, opis' 2, delo 18.

Isserson, G.S. Osnovy Glubokoi Operatsii [Fundamentals of the Deep Operation]. [Moscow], 1933. Considerations of secrecy make it impossible at this time to cite this archival document in the usual manner.

Mezheninov, S.A. Razrabotka o Nachal'nom Periode Voyny [A Sketch of the War's Beginning Period]. [Moscow], 8 July 1934. Considerations of secrecy make it impossible at this time to cite this archival document in the usual manner.

Shaposhnikov, B.M. Doklad Nachal'nika Shtaba Predsedateliu Revoliutsionnogo Voennogo Soveta Soiuz SSSR [The Chief of Staff's Report to the Chairman of the Revolutionary Military Council of the USSR]. [Moscow], 19 March 1929. TsGASA, fond 4, opis' 2, delo 515.

_____. Otvet na Zapisku A. Svechina 'Budushchaia Voina i Nashi Voennye Zadachi' [A Reply to A. Svechin's Note 'A Future War and Our Military Tasks']. [Moscow], 28 March 1930. Considerations of secrecy make it impossible at this time to cite this archival document in the usual manner.

Shtab Ural'skogo Voennogo Okruga. Proekt-Osnovy Vedeniia Operatsii [A Draft-Fundamentals of Conducting Operations]. [Sverdlovsk], 10 Oct., 1936. Considerations of secrecy make it impossible at this time to cite this archival document in the usual manner.

Svechin, A.A. Budushchaia Voina i Nashi Voennye Zadachi [A Future War and Our Military Tasks]. [Moscow], 8 March, 1930. Considerations of secrecy make it impossible at this time to cite this archival document in the usual manner.

Triandafillov, V.K. Osnovnye Voprosy Taktiki i Operativnogo Iskusstva v Sviazi s Rekonstruktsiei Armii [Fundamental Problems of Tactics and Operational Art in Connection with the Army's Reconstruction]. [Moscow], 1931. TsGASA, fond 37977, opis' 3, delo 368.

Tukhachevskii, M.N. Budushchaia Voina [Future War]. [Moscow], 1928. TsGASA, fond 33988, opis' 2, delo 682-88.

-
- . Dokladnaia Zapiska Komanduiushchego Leningradskogo Voennogo Okruga Narodnomu Komissaru po Voennym i Morskim Delam K.E. Voroshilovu [Memorandum of the Commander of the Leningrad Military District to the People's Commissar of Military and Naval Affairs, K.E. Voroshilov]. [Leningrad], 11 Jan., 1930. TsGASA, fond 7, opis' 1, delo 170.
-
- . Novye Voprosy Voiny [New Problems of War]. [Moscow], 1932. TsGASA, fond 33987, opis' 3, delo 368.

B. Published

- Frunze, M.V. Vysshee Komandovanie. Ofitsial'noe Rukovodstvo dlia Komanduiushchikh i Polevykh Upravlenii Armii i Frontov [The High Command. An Official Manual for Commanders and Field Organs of Armies and Fronts]. Moscow: Vysshii Voennyi Redaktsionnyi Sovet, 1924.
- General'nyi Shtab. Polozhenie o Polevom Upravlenii Voisk v Voennoe Vremia [Regulations on the Field Control of Troops in Wartime]. Petrograd: Voennaia Tipografiia Imperatritsy Ekateriny Velikoi, 1914.
- Iaroslavskii, E. 'Kak Vossozdat' Armiiu' [How to Recreate the Army]. Izvestiia (Moscow), 15 June 1918, 1-2.
- Ivanov, N. 'Kastrirovannaia "Glubinnaia Taktika"' [Castrated 'Deep Tactics']. Krasnaia Zvezda (Moscow), 27 Aug. 1932, 2.
-
- . 'O Vstrechnoi Operatsii' [On the Meeting Operation]. Krasnaia Zvezda (Moscow), 24 Aug. 1932, 2.
- Krasil'nikov, S. 'Nachal'nyi Period Budushchei Voiny' [The Beginning Period of a Future War]. Pravda (Moscow), 20 May 1936, 2.
- Narodnyi Komissariat po Voennym i Morskim Delam. Polevoi Ustav RKKA [RKKA Field Manual]. Moscow and Leningrad: Gosudarstvennoe Izdatel'stvo, 1937.
- Narodnyi Komissariat Oborony. Vremennyi Polevoi Ustav 1936 [1936 RKKA Provisional Field Manual]. Moscow: Gosudarstvennoe Voennoe Izdatel'stvo, 1937.
- Shilovskii, E. 'Prostranstvennaia Operatsiia' [The Spatial Operation]. Krasnaia Zvezda (Moscow), 2 July 1932, 2.
-
- . 'Vstrechnaia Operatsiia' [The Meeting Operation]. Krasnaia Zvezda (Moscow), 11 Nov. 1932, 2.
- Sorin, V. 'Komandiry i Komissary v Deistvuiushchei Armii' [Commanders and Commissars in the Field Army]. Pravda (Moscow), 29 Nov. 1918, 2.
- Sverdlov, F. 'On Videl Budushchuiu Voinu' [He Saw the Future War]. Patriot [The Patriot], no. 19, 1992, 11.
- Varfolomeev, N. 'Evoliutsiia Tekhniki i Sovremennaia Operatsiia' [The Evolution of Equipment and the Modern Operation]. Krasnaia Zvezda (Moscow), 2 June 1932, 2.
-
- . 'Glubokaia Operatsiia' [The Deep Operation]. Krasnaia Zvezda (Moscow), 5 Nov. 1932, 2.

- _____. 'Operativnoe Iskusstvo na Sovremennom Etape' [Operational Art at a Modern Stage], Krasnaia Zvezda (Moscow), 3 June 1932, 2.
- Voroshilov, K.E. 'Prikaz Narodnogo Komissara SSSR' [Order of the USSR People's Defence Commissar]. Krasnaia Zvezda (Moscow), 14 June 1937, 2.
- Zhigur, Ia. 'O "Glubinnoi Taktike" i "Prostranstvennoi Operatsii"' [On 'Deep Tactics and the Spatial Operation']. Krasnaia Zvezda (Moscow), 15 Aug. 1932, 2.

II. Later Works

A. Books

- Aganov, S.Kh., ed. Inzhenernye Voiska Sovetskoi Armii 1918-1945 [The Soviet Army's Engineering Troops, 1918-1945]. Moscow: Voennoe Izdatel'stvo, 1985.
- Agureev, K.V. Razgrom Belogvardeiskikh Voisk Denikina [The Rout of Denikin's White Guard Troops]. Moscow: Voennoe Izdatel'stvo, 1961.
- Aldcroft, D.H. The European Economy, 1914-1970. New York: St. Martin's Press, 1978.
- Anan'ev, I.M. Tankovye Armii v Nastuplenii: Po Opytu Velikoi Otechestvennoi Voiny 1941-1945 gg. [Tank Armies in the Offensive: According to the Experience of the Great Patriotic War, 1941-1945]. Moscow: Voennoe Izdatel'stvo, 1988.
- Andronikov, N.G., A.S. Begishev, I.G. Kalachev, I.I. Krasnov, and P.V. Terekhov. Bronetankovye i Mekhanizirovannye Voiska Sovetskoi Armii [The Soviet Army's Armoured and Mechanised Forces]. Moscow: Voennoe Izdatel'stvo, 1958.
- Anfilov, V.A. Bessmertnyi Podvig [The Eternal Feat]. Moscow: Izdatel'stvo 'Nauka', 1971.
- Antonov-Ovseenko, A. The Time of Stalin. Translated by G. Saunders. New York: Harper & Row, 1981.
- Apushkin, V.A. Russko-Iaponskaia Voina 1904-1905 g. [The Russo-Japanese War, 1904-1905]. Moscow: Russkoe Tovarishchestvo, 1910.
- Aralov, S.I. Lenin Vel Nas k Pobede [Lenin Led Us to Victory]. Moscow: Gosudarstvennoe Izdatel'stvo Politicheskoi Literatury, 1962.
- Azovtsev, N.N., ed. Grazhdanskaia Voina v SSSR [The Civil War in the USSR]. Moscow: Voennoe Izdatel'stvo, 1980-86.
- _____, P.N. Dmitriev, V.V. Dushen'kin, S.F. Naida, and S.N. Shishkin, eds. Direktivy Komandovaniia Frontov Krasnoi Armii (1917-1922 gg.) [Directives of the Red Army's Front Commands (1917-1922)]. Moscow: Voennoe Izdatel'stvo, 1971-78.
- Bagramian, I.Kh., ed. Istoriia Voin i Voennogo Iskusstva [A History of Wars and Military Art]. Moscow: Voennoe Izdatel'stvo, 1970.

- _____. Moi Vospominaniia [My Reminiscences]. Erevan: Izdatel'stvo 'Aiastan', 1979.
- Barmine, A. Memoirs of a Soviet Diplomat. Translated by G. Hopkins. London: Lovat Dickson, Ltd., 1938.
- Batitskii, P.F., ed. Voiska Protivovozdushnoi Oborony Strany [The National Air Defence Forces]. Moscow: Voennoe Izdatel'stvo, 1968.
- Belitskii, S.M. Strategicheskie Rezervy [Strategic Reserves]. Moscow: Gosudarstvennoe Izdatel'stvo, 1930.
- _____. Voina [War]. Leningrad: Izdatel'stvo 'Molodaia Gvardiia', 1931.
- Beloi, A.S. Galitsiiskaia Bitva [The Battle of Galicia]. Moscow and Leningrad: Gosudarstvennoe Izdatel'stvo, 1929.
- Belov, G.A., A.V. Golubev, P.A. Zhilin, D.I. Kurtov, S.F. Naida, and S.N. Shishkin, eds. Direktivy Komandovaniia Krasnoi Armii (1917-1920) [Directives of the Red Army High Command (1917-1920)]. Moscow: Voennoe Izdatel'stvo, 1969.
- _____, A.F. Butenko, B.A. Gavrilov, P.A. Golub, A.F. Gorlenko, N.F. Kuz'min, V.P. Moskovskii, S.F. Naida, G.D. Obichkin, A.A. Struchkov, N.I. Shatagin, and L.I. Iakovlev, eds. Iz Istorii Grazhdanskoi Voiny [From the History of the Civil War]. Moscow: Izdatel'stvo 'Sovetskaia Rossia', 1960-61.
- Benvenuti, F. The Bolsheviks and the Red Army. Translated by C. Woodall. Cambridge: Cambridge University Press, 1988.
- Berkhin, I.B. Voennaia Reforma v SSSR (1924-1925 gg.) [The Military Reform in the USSR (1924-1925)]. Moscow: Voennoe Izdatel'stvo, 1958.
- Bocharov, K., I. Nizhechek, and P. Suslov, eds. Protiv Reaktsionnykh Teorii na Voennonauchnom Fronte. Kritika Strategicheskikh i Voennoistoricheskikh Vzgliadov Prof. Svechina [Against Reactionary Theories on the Military-Scientific Front. A Criticism of Prof. Svechin's Strategic and Military-Historical Views]. Moscow: Gosudarstvennoe Voennoe Izdatel'stvo, 1931.
- Bonch-Bruevich, M.D. Vsia Vlast' Sovetam [All Power to the Soviets]. Moscow: Voennoe Izdatel'stvo, 1957.
- Brusilov, A.A. Moi Vospominaniia [My Memoirs], 2nd ed. Moscow: Voennoe Izdatel'stvo, 1941.
- Bubnov, A.S., S.S. Kamenev, and R.P. Eideman, eds. Grazhdanskaia Voina 1918-1921 [The Civil War, 1918-1921]. Moscow: Izdatel'stvo 'Voennyi Vestnik', 1928-30.
- Budennyi, S.M. Proidennyi Put' [The Road Travelled]. Moscow: Voennoe Izdatel'stvo, 1958-73.
- Bulgakova, T.P., ed. Akademiia General'nogo Shtaba [The General Staff Academy], 2nd ed. Moscow: Voennoe Izdatel'stvo, 1987.
- Carver, M. Twentieth Century Warriors. London: Weidenfeld and Nicolson, 1987.
- Chamberlain, W.H. The Russian Revolution, 1917-1921. New York: The Macmillan Co., 1935.
- Cheremisov, V.A. Russko-Iaponskaia Voina 1904-1905 Goda [The Russo-

- Japanese War, 1904-1905], 2nd ed. St. Petersburg: Izdatel'stvo V. Berezovskogo, 1909.
- Cherkasov, P.V., ed. Mirovaia Voina 1914-1918. 'Lutskii Proryv'. Trudy i Materialy k Operatsii Iugo-Zapadnogo Fronta v Mae-Iiune 1916 Goda [The World War, 1914-1918. 'The Lutsk Breakthrough'. Works and Materials on the Southwestern Front's Operation in May-June, 1916]. Moscow: Vysshii Voennyi Redaktsionnyi Sovet, 1924.
- Chuntulov, V.T. Ekonomicheskaiia Istoriia SSSR [An Economic History of the USSR]. Moscow: Izdatel'stvo 'Vysshiaia Shkola', 1969.
- von Clausewitz, C. On War. Edited and translated by M. Howard and P. Paret. Princeton: Princeton University Press, 1984.
- Conquest, R. The Great Terror. Stalin's Purge of the Thirties. London: Macmillan & Co., 1968.
- _____. The Harvest of Sorrow. Soviet Collectivization and the Terror-Famine. London: Hutchinson, 1986.
- Degtiarev, A.M., ed. Kievskii Krasnoznamennyi [Kiev Red Banner]. Moscow: Voennoe Izdatel'stvo, 1974.
- Denikin, A.I. Ocherki Russkoi Smuty [Essays on the Russian Troubles]. Paris: J. Povolozky & Co., 1921-22; Berlin: 'Slovo', 1924-25; Berlin: 'Mednyi Vsadnik', 1926.
- _____. Put' Russkogo Ofitsera [The Journey of a Russian Officer]. New York: Izdatel'stvo imeni Chekhova, 1953.
- Egorov, A.I. L'vov-Varshava. 1920 God. Vzaimodeistvie Frontov [L'vov-Warsaw. 1920. The Interaction of Fronts]. Moscow and Leningrad: Gosudarstvennoe Voennoe Izdatel'stvo, 1929.
- _____. Razgrom Denikina 1919 [The Rout of Denikin, 1919]. Moscow: Gosudarstvennoe Voennoe Izdatel'stvo, 1931.
- Elchaninov, A.G. Strategiia [Strategy]. St. Petersburg: Tipografiia I. Trofimova, 1912.
- _____. Vedenie Sovremennykh Voyny i Boia [The Waging of Modern War and Battle]. St. Petersburg: Tipografiia Gr. Skachkova s S-mi, 1909.
- Engel's, F. Izbrannye Voennye Proizvedeniia [Selected Military Works]. Moscow: Voennoe Izdatel'stvo, 1957.
- Eremenko, A.I. V Nachale Voyny [In the Beginning of the War]. Moscow: Izdatel'stvo 'Nauka', 1965.
- Erickson, J. The Road to Stalingrad. Boulder, Colo.: Westview Press, 1983.
- _____. The Soviet High Command. A Military-Political History. London: St. Martin's Press, 1962.
- von Falkenhayn, E. General Headquarters 1914-1916 and its Critical Decisions. London: Hutchinson & Co., 1919.
- Fediukin, S.A. Velikii Oktiabr' i Intelligentsiia [Great October and the Intelligentsia]. Moscow: Izdatel'stvo 'Nauka', 1972.
- Fedotoff White, D. The Growth of the Red Army. Princeton: Princeton University Press, 1944.

- Frunze, M.V. Izbrannye Proizvedeniia [Selected Works]. Moscow: Voennoe Izdatel'stvo, 1957.
- Fugate, B.I. Operation Barbarossa. Strategy and Tactics on the Eastern Front, 1941. Novato, Cal.: Presidio Press, 1984.
- Galaktionov, M. Tempy Operatsii. Parizh-1914 [The Pace of Operations. Paris-1914]. Moscow: Gosudarstvennoe Voennoe Izdatel'stvo, 1936.
- Garder, M. A History of the Soviet Army. London: Pall Mall Press, 1966.
- Gareev, M.A. Obshchevoiskovye Ucheniia [Combined-Arms Exercises], 2nd ed. Moscow: Voennoe Izdatel'stvo, 1990.
- Gershel'man, F. Mysli o Iaponskoi Voine [Thoughts on the Japanese War]. St. Petersburg: Sklad V.A. Berezovskogo, 1908.
- Gerua, B.V. Vospominaniia o Moei Zhizni [Memoirs of My Life]. Paris: 'Tanaïs', 1969.
- Glantz, D.M. Soviet Military Operational Art. In Pursuit of Deep Battle. London: Frank Cass & Co., Ltd., 1991.
- Golovin, N.N. Voennye Usiliia Rossii v Mirovoi Voine [Russia's Military Efforts in the World War]. Paris: Tovarishchestvo Ob"edinennykh Izdatelei, 1939.
- _____. Vvedenie v Kurs Taktiki [An Introduction to a Course in Tactics], 2nd ed. St. Petersburg: Ekonomicheskaiia Tipolitografiia, 1912.
- Gorbatov, A.V. Gody i Voiny [Years and Wars]. Moscow: Voennoe Izdatel'stvo, 1965.
- Gor'kii, A.M., V.M. Molotov, K.E. Voroshilov, A.A. Zhdanov, A.S. Bubnov, Ia.B. Gamarnik, and I.V. Stalin, eds. Istoriia Grazhdanskoi Voiny v SSSR [The History of the Civil War in the USSR]. Moscow: Gosudarstvennoe Izdatel'stvo 'Istoriia Grazhdanskoi Voiny', 1935-60.
- Grechko, A.A., ed. Istoriia Vtoroi Mirovoi Voiny 1939-1945 [The History of the Second World War, 1939-1945]. Moscow: Voennoe Izdatel'stvo, 1973-1980.
- _____, ed. Sovetskaia Voennaia Entsiklopediia [Soviet Military Encyclopedia]. Moscow: Voennoe Izdatel'stvo, 1976-80.
- Grigorenko, P. V Podpol'e Mozhno Vstretit' Tol'ko Krys [In the Underground One Meets Only Rats]. New York: Izdatel'stvo 'Detinets', 1981.
- Gusev, S.I. Grazhdanskaia Voina i Krasnaia Armiia [The Civil War and the Red Army]. Moscow and Leningrad: Gosudarstvennoe Izdatel'stvo, 1925.
- Humphreys, A.A. The Virginia Campaign of '64 and '65. Vol. 12 of The Army in the Civil War, subscription ed. New York: Charles Scribner's Sons, 1885.
- Iakupov, N.M. Tragediia Polkovodtsev [The Tragedy of the Commanders]. Moscow: Izdatel'stvo 'Mysl', 1992.
- Iaroslavskii, E., ed. Vos'moi S"ezd RKP(b) [The Eighth RKP(b) Congress]. Moscow: Partiinoe Izdatel'stvo, 1933.

Iovlev, A.M. Deiatel'nost' KPSS po Podgotovke Voennykh Kadrov [The CPSU's Activity in Preparing Military Cadres]. Moscow: Voennoe Izdatel'stvo, 1976.

Isserson, G.S. Evoliutsiia Operativnogo Iskusstva [The Evolution of Operational Art]. Moscow: Gosudarstvennoe Voennoe Izdatel'stvo, 1932.

_____. Evoliutsiia Operativnogo Iskusstva [The Evolution of Operational Art], 2nd ed. Moscow: Gosudarstvennoe Voennoe Izdatel'stvo, 1937.

_____. Lektsii po Glubokoi Taktike [Lectures on Deep Tactics]. Moscow: Voennaia Akademiia imeni M.V. Frunze, 1933.

_____. Martovskoe Nastuplenie Germantsev v Pikardii v 1918 Godu [The Germans' March Offensive in Picardy in 1918]. Moscow: Gosudarstvennoe Voennoe Izdatel'stvo, 1926.

Ivanov, S.P., ed. Nachal'nyi Period Voyny: Po Opytu Pervykh Kampanii i Operatsii Vtoroi Mirovoi Voyny [The Beginning Period of the War: According to the Experience of the First Campaigns and Operations of the Second World War]. Moscow: Voennoe Izdatel'stvo, 1974.

Ivanov, V.M. Marshal M.N. Tukhachevskii [Marshal M.N. Tukhachevskii]. Moscow: Voennoe Izdatel'stvo, 1990.

Izmest'ev, P.I., and E.E. Messner. Konspekt Strategii [A Strategic Abstract]. St. Petersburg: Tipografiia A.E. Landau, 1899.

Kadishchev, A.B., ed. Voprosy Strategii i Operativnogo Iskusstva v Sovetskikh Voennykh Trudakh (1917-1940) [Problems of Strategy and Operational Art in Soviet Military Works (1917-1940)]. Moscow: Voennoe Izdatel'stvo, 1965.

_____, ed. Voprosy Taktiki v Sovetskikh Voennykh Trudakh (1917-1940) [Problems of Tactics in Soviet Military Works (1917-1940)]. Moscow: Voennoe Izdatel'stvo, 1970.

Kakurin, N.E. Kak Srazhalas' Revoliutsiia [How the Revolution Fought]. Moscow and Leningrad: Gosudarstvennoe Izdatel'stvo, 1925-26.

_____. Strategiia Proletarskogo Gosudarstva [The Strategy of the Proletarian State]. Smolensk: Redaktsionno-Izdatel'skii Otdel pri RVS Zapadnogo Fronta, 1921.

_____, and V.A. Melikov. Voyna s Belopoliakami 1920 g. [The War with the White Poles, 1920]. Moscow: Gosudarstvennoe Voennoe Izdatel'stvo, 1925.

Kamenev, S.S. Zapiski o Grazhdanskoi Voine i Voennom Stroitel'stve. Izbrannye Stat'i [Notes on the Civil War and Military Construction. Selected Articles]. Compiled by N.S. Kameneva, L.M. Spirin, and P.P. Chernushkov. Moscow: Voennoe Izdatel'stvo, 1963.

Kapustin, N.Ia. Operativnoe Iskusstvo v Pozitsionnoi Voine [Operational Art in a Positional War]. Moscow and Leningrad: Gosudarstvennoe Izdatel'stvo, 1927.

Karpov, V.V. Marshal Zhukov. Ego Soratniki i Protivniki v Dni Voyny i Mira [Marshal Zhukov. His Comrades in Arms and Enemies in Times of War and Peace]. Moscow: Voennoe Izdatel'stvo, 1992.

- Kavtaradze, A.G. Voennye Spetsialisty na Sluzhbe Respubliki Sovetov 1917-1920 gg. [Military Specialists on Service to the Soviet Republic, 1917-1920]. Moscow: Izdatel'stvo 'Nauka', 1988.
- Kazakov, M.I. Nad Kartoi Bylykh Srazhenii [Over the Map of Past Battles]. Moscow: Voennoe Izdatel'stvo, 1971.
- Kenez, P. Civil War in South Russia, 1918. Berkeley: University of California Press, 1971.
- _____. Civil War in South Russia, 1919-1920. Berkeley: University of California Press, 1977.
- Kersnovskii, A.A. Filosofia Voiny [The Philosophy of War]. Belgrade: 'Tsarskii Vestnik', 1939.
- _____. Istoriia Russkoi Armii [A History of the Russian Army]. Belgrade: 'Tsarskii Vestnik', 1933-38.
- Khromov, S.S., ed. Grazhdanskaia Voina i Voennaia Interventsiia v SSSR. Entsiklopediia [The Civil War and Military Intervention in the USSR. An Encyclopedia]. Moscow: Izdatel'stvo 'Sovetskaiia Entsiklopediia', 1983.
- Khrushchev, N.S. Khrushchev Remembers. Edited and translated by S. Talbot. London: Andre Deutsch, Ltd., 1971.
- Kir'ian, M.M., ed. Fronty Nastupali. Po Opytu Velikoi Otechestvennoi Voiny [The Fronts Attacked. According to the Experience of the Great Patriotic War]. Moscow: Izdatel'stvo 'Nauka', 1987.
- _____, ed. Voenno-Tekhnicheskii Progress i Vooruzhennye Sily SSSR [Military-Technical Progress and the USSR's Armed Forces]. Moscow: Voennoe Izdatel'stvo, 1982.
- Kolenkovskii, A. Manevrennyi Period Pervoi Mirovoi Imperialisticheskoi Voiny, 1914 g. [The Maneuver Period of the First World Imperialist War, 1914]. Moscow: Gosudarstvennoe Voennoe Izdatel'stvo, 1940.
- _____. O Nastupatel'noi Operatsii Armii, Vkhodiashchei v Sostav Fronta [On the Offensive Operation of an Army as Part of a Front]. Moscow: Voennaia Akademiia RKKA im. Frunze, 1929.
- Koritskii, N.I., S.M. Mel'nik-Tukhachevskaiia, and B.N. Chistov, comps. Marshal Tukhachevskii. Vospominaniia Druzei i Soratnikov [Marshal Tukhachevskii. Memoirs of Friends and Comrades in Arms]. Moscow: Voennoe Izdatel'stvo, 1965.
- Korotkov, I.A. Istoriia Sovetskoi Voennoi Mysli [A History of Soviet Military Thought]. Moscow: Izdatel'stvo 'Nauka', 1980.
- Korotkov, I.S. Razgrom Vrangelia [The Rout of Wrangel], 3rd ed. Moscow: Voennoe Izdatel'stvo, 1955.
- Krasil'nikov, S.N. Organizatsiia Krupnykh Obshchevoiskovykh Soedinenii [The Organisation of Large Combined-Arms Formations]. Moscow: Gosudarstvennoe Voennoe Izdatel'stvo, 1933.
- Krivitsky, W.G. In Stalin's Secret Service. New York: Harper & Bros., 1939.
- Krivosheev, G.F., ed. Grif Sekretnosti Sniat. Poteri Vooruzhennykh Sil SSSR v Voinakh, Boevykh Deistviiakh i Voennykh Konfliktakh. Statisticheskoe Issledovanie [The Seal of Secrecy Removed. Losses of the USSR's Armed Forces in Wars, Combat Actions and Military Conflicts. A Statistical Study]. Moscow: Voennoe

Izdatel'stvo, 1993.

Kulikov, V.G., ed. Akademiia General'nogo Shtaba [The General Staff Academy]. Moscow: Voennoe Izdatel'stvo, 1976.

Kurochkin, P.A., ed. Obshchevoiskovaia Armiia v Nastuplenii [The Combined-Arms Army in the Offensive]. Moscow: Voennoe Izdatel'stvo, 1966.

Lapchinskii, A.N. Bombardirovochnaia Aviatsiia [Bomber Aviation]. Moscow: Gosudarstvennoe Voennoe Izdatel'stvo, 1937.

Leer, G.A. Strategiia (Taktika Teatra Voennykh Deistvii) [Strategy (The Tactics of the Theatre of Military Activities)] 4th ed. St. Petersburg: Tipografiia V. Bezobrazova, 1885-87.

_____. Strategiia (Taktika Teatra Voennykh Deistvii) [Strategy (The Tactics of the Theatre of Military Activities)], 6th ed. St. Petersburg: Izdatel'stvo V.A. Berezovskogo, 1898.

Lenin, V.I. Polnoe Sobranie Sochinenii [Complete Works], 5th ed. Moscow: Gosudarstvennoe Izdatel'stvo Politicheskoi Literatury, 1958-65.

Levichev, V.N., ed. Voina i Voennoe Delo [War and Military Affairs]. Moscow: Gosudarstvennoe Voennoe Izdatel'stvo, 1933.

Levitskii, N.A. Russko-Iaponskaia Voina 1904-1905 gg. [The Russo-Japanese War, 1904-1905], 3rd ed. Moscow: Gosudarstvennoe Voennoe Izdatel'stvo, 1938.

Liddell Hart, B.H., ed. The Soviet Army. London: Weidenfeld and Nicolson, 1956.

Lincoln, W.B. Red Victory. A History of the Russian Civil War. New York: Simon and Schuster, 1989.

Lisov, I.I. Sovetskie Vozdushno-Desantnye Voiska [The Soviet Airborne-Landing Troops]. Moscow: Izdatel'stvo DOSAAF, 1967.

Lizichev, A.D. Put' Peremen, Vremia Deistvii [The Path of Change, A Time of Action]. Moscow: Voennoe Izdatel'stvo, 1989.

Luckett, R. The White Generals. An Account of the White Movement and the Russian Civil War. New York: The Viking Press, 1971.

Ludendorff, E. My War Memories, 1914-1918. London: Hutchinson & Co., 1919.

Mackintosh, M. Juggernaut. A History of the Soviet Armed Forces. New York: Macmillan Co., 1967.

Martel, G. The Russian Outlook. London: Michael Joseph, Ltd., 1947.

Marushevskii, V.V. Upravlenie Voiskami na Teatre Voiny i na Pole Srazheniia [Troop Control in the Theatre of War and on the Battlefield]. St. Petersburg: Tipografiia A.S. Suvorina, 1912.

Medvedev, R.A. Let History Judge. The Origins and Consequences of Stalinism. Edited by D. Joravsky and G. Haupt. Translated by C. Taylor. New York: Alfred A. Knopf, 1971.

Melikov, V.A. Geroicheskaia Oborona Tsarytsina (1918 g.) [The Heroic Defence of Tsarytsin (1918)]. Moscow: Gosudarstvennoe Voennoe Izdatel'stvo, 1938.

_____. Marna-1914 Goda. Visla-1920 Goda. Smirna-1922 Goda [The

Marne-1914. The Vistula-1920. Smyrna-1922]. Moscow and Leningrad: Gosudarstvennoe Izdatel'stvo, 1928.

_____. Problema Strategicheskogo Razvertyvaniia po Opytu Mirovoi i Grazhdanskoi Voiny [The Problem of Strategic Deployment According to the Experience of the World and Civil Wars]. Moscow: Voennaia Akademiia imeni M.V. Frunze, 1935.

Messner, E., S. Vakar, F. Verbitskii, V. Granitov, S. Kashirin, A. Petrashevich, M. Rozhchenko, V. Tseshke, V. Shaiditskii, and I. Eikhenbaum. Rossiiskie Ofitseri [Russian Officers]. Buenos Aires: Iuzhno-Amerikanskii Otdel Instituta po Issledovaniu Problem Voiny i Mira imeni Generala Prof. N.N. Golovina, 1959.

Mikhnevich, N.P. Osnovy Strategii [Fundamentals of Strategy]. St. Petersburg: Tipografiia Trenke i Fiusno, 1913.

_____. Strategiia [Strategy], 3rd ed. St. Petersburg: Izdanie V.A. Berezovskogo, 1911.

Morozov, B.N., ed. Kratkii Slovar' Operativno-Takticheskikh i Obshchevoiskovykh Sloz (Terminov) [A Short Dictionary of Operational-Tactical and Combined-Arms Words (Terms)]. Moscow: Voennoe Izdatel'stvo, 1958.

_____, ed. Slovar' Osnovnykh Voennykh Terminov [A Dictionary of Basic Military Terms]. Moscow: Voennoe Izdatel'stvo, 1965.

Mostovenko, V.D. Tanki [Tanks], 2nd ed. Moscow: Voennoe Izdatel'stvo, 1958.

Movchin, N.N. Posledovatel'nye Operatsii po Opytu Marny i Visly [Consecutive Operations According to the Experience of the Marne and the Vistula]. Moscow and Leningrad, 1928.

Neznamov, A.A. Sovremennaiia Voina. Deistviia Polevoi Armii [Modern War. The Activities of a Field Army]. St. Petersburg: Tipografiia Gr. Skachkova s S-mi, 1911.

Novitskii, V.F. Mirovaia Voina 1914-1918 g.g. Kampaniia 1914 Goda v Bel'gii i Frantsii [The World War, 1914- 1918. The 1914 Campaign in Belgium and France]. Moscow: Gosudarstvennoe Voennoe Izdatel'stvo, 1926-28.

O'Ballance, E. The Red Army. London: Faber and Faber, 1964.

Orlov, A. Tainaia Istoriia Stalinskikh Prestuplenii [The Secret History of Stalin's Crimes]. St. Petersburg: Knigoizdatel'stvo 'Vsemirnoe Slovo', 1991.

Piatnitskii, N.V. Voennaia Organizatsiia Gosudarstvennoi Oborony SSSR [The Military Organization of the State Defence of the USSR]. Paris: Ofiterskaia Shkola Uovershenstvovaniia Voennykh Znanii pri I Otdel Russkogo Obshchevoinskogo Soiuzu v Parizhe, 1932.

Pipes, R. The Russian Revolution. New York: Alfred A. Knopf, 1990.

Plekhov, A.M., comp. Slovar' Voennykh Terminov [A Dictionary of Military Terms]. Moscow: Voennoe Izdatel'stvo, 1988.

Poliakov, Iu.A. Sovetskaia Strana Posle Okonchaniia Grazhdanskoi Voiny. Territoriia i Naselenie [The Soviet Union After the Civil War. Territory and Population]. Moscow: Izdatel'stvo 'Nauka', 1986.

Pospelov, P.N., ed. Istoriia Velikoi Otechestvennoi Voiny Sovetskogo

- Soiuza 1941-1945 [The History of the Great Patriotic War of the Soviet Union, 1941-1945]. Moscow: Voennoe Izdatel'stvo, 1960-65.
- _____, ed. Velikaia Otechestvennaia Voina Sovetskogo Soiuza 1941-1945. Kratkaia Istoriia [The Great Patriotic War of the Soviet Union, 1941-1945. A Short History]. Moscow: Voennoe Izdatel'stvo, 1965.
- Prochko, I.S. Artilleria-Bog Voiny [Artillery-the God of War]. Moscow: Gosudarstvennoe Izdatel'stvo Politicheskoi Literatury, 1946.
- Prokhorov, A.M., ed. Bol'shaia Sovetskaia Entsiklopediia [The Great Soviet Encyclopedia], 3rd ed. Moscow: Izdatel'stvo 'Sovetskaia Entsiklopediia', 1969-78.
- Putna, V.K. K Visle i Obratno [To the Vistula and Back]. Moscow: Izdatel'stvo 'Voennyi Vestnik', 1927.
- Rabinovich, S.E. Istoriia Grazhdanskoi Voiny [A History of the Civil War], 2nd ed. Moscow: Gosudarstvennoe Sotsial'no-Ekonomicheskoe Izdatel'stvo, 1935.
- Radzievskii, A.I., ed. Akademiia imeni M.V. Frunze [The M.V. Frunze Academy]. Moscow: Voennoe Izdatel'stvo, 1973.
- Rapoport, V., and Iu. Alexeev. High Treason: Essays on the History of the Red Army, 1918-1938. Edited by V. Treml. Translated by B. Adams. Durham: Duke University Press, 1985.
- Rostunov, I.I., ed. Istoriia Russko-Iaponskoi Voiny 1904-1905 gg. [A History of the Russo-Japanese War, 1904-1905]. Moscow: Izdatel'stvo 'Nauka', 1977.
- _____. Russkii Front Pervoi Mirovoi Voiny [The Russian Front in the First World War]. Moscow: Izdatel'stvo 'Nauka', 1976.
- Rotmistrov, P.A., ed. Istoriia Voenного Iskusstva [A History of Military Art]. Moscow: Voennoe Izdatel'stvo, 1963.
- _____. Vremia i Tanki [Time and Tanks]. Moscow: Voennoe Izdatel'stvo, 1972.
- Samoilo, A.A. Dve Zhizni [Two Lives]. Moscow: Voennoe Izdatel'stvo, 1958.
- Sandalov, L.M. Perezhitoe [My Past]. Moscow: Voennoe Izdatel'stvo, 1961.
- Savinkin, N.I., and K.M. Bogoliubov, comps. KPSS o Vooruzhennykh Silakh Sovetskogo Soiuza. Dokumenty 1917-1981 [The CPSU on the Armed Forces of the Soviet Union. Documents, 1917-1981]. Moscow: Voennoe Izdatel'stvo, 1981.
- Savkin, V.E. Osnovnye Printsipy Operativnogo Iskusstva i Taktiki [Fundamental Principles of Operational Art and Tactics]. Moscow: Voennoe Izdatel'stvo, 1972.
- Savushkin, R.A. Razvitie Sovetskikh Vooruzhennykh Sil i Voenного Iskusstva v Mezhoennoi Period (1921-1941 gg.) [The Development of the Soviet Armed Forces and Military Art During the Interwar Period (1921-1941)]. Moscow: Tipografiia VPA imeni V.I. Lenina, 1989.
- Scott, H.F., and W.F. Scott. The Armed Forces of the USSR. Boulder, Colo.: Westview Press, 1979.

- Semenov, V.A. Kratkii Ocherk Razvitiia Sovetskogo Operativnogo Iskusstva [A Short Essay on the Development of Soviet Operational Art]. Moscow: Voennoe Izdatel'stvo, 1960.
- Shaposhnikov, B.M. Mozg Armii [The Brain of the Army]. Moscow: Izdatel'stvo 'Voennyi Vestnik', 1927-29.
- _____. Vospominaniia. Voenno-Nauchnye Trudy [Memoirs. Military-Scientific Works]. Edited by A.M. Tkachenko. Moscow: Voennoe Izdatel'stvo, 1974.
- Shmidt, O.Iu., ed. Bol'shaia Sovetskaia Entsiklopediia [The Great Soviet Encyclopedia]. Moscow: Aktsionernoe Obshchestvo 'Sovetskaia Entsiklopediia', 1926-47.
- Smirnov, S.A. Taktika [Tactics]. Moscow: Gosudarstvennoe Voennoe Izdatel'stvo, 1935.
- Sokolovskii, V.D., ed. Voennaia Strategiia [Military Strategy]. Moscow: Voennoe Izdatel'stvo, 1962.
- Spirin, L.M. Razgrom Armii Kolchaka [The Rout of Kolchak's Army]. Moscow: Izdatel'stvo Politicheskoi Literatury, 1957.
- Stalin, I.V. Sochineniia [Works]. Moscow: Izdatel'stvo Politicheskoi Literatury, 1946-52.
- Strokov, A.A. Vooruzhennnye Sily i Voennoe Iskusstvo v Pervoi Mirovoi Voine [The Armed Forces and Military Art in the First World War]. Moscow: Voennoe Izdatel'stvo, 1974.
- Stuchenko, A.T. Nasha Zavidnaia Sud'ba [Our Envidable Fate]. Moscow: Voennoe Izdatel'stvo, 1964.
- Svechin, A.A. Evoliutsiia Voenного Iskusstva [The Evolution of Military Art]. Moscow and Leningrad: Gosudarstvennoe Voennoe Izdatel'stvo, 1927-28.
- _____. Strategiia [Strategy], 2nd ed. Moscow: Izdatel'stvo 'Voennyi Vestnik', 1927.
- Tiulenev, I.V. Sovetskaia Kavaleriia v Boiakh za Rodinu [Soviet Cavalry in Battles for the Motherland]. Moscow: Voennoe Izdatel'stvo, 1957.
- Tiushkevich, S.A., ed. Sovetskie Vooruzhennnye Sily: Istorii Stroitel'stva [The Soviet Armed Forces: A History of Construction]. Moscow: Voennoe Izdatel'stvo, 1978.
- Todorskii, A.I. Marshal Tukhachevskii [Marshal Tukhachevskii]. Moscow: Izdatel'stvo Politicheskoi Literatury, 1963.
- Triandafillov, V.K. Kharakter Operatsii Sovremennykh Armii [The Character of Operations of Modern Armies]. Moscow and Leningrad: Gosudarstvennoe Izdatel'stvo, 1929.
- _____. Kharakter Operatsii Sovremennykh Armii [The Character of Operations of Modern Armies], 2nd ed. Moscow: Gosudarstvennoe Voennoe Izdatel'stvo, 1932.
- _____. Razmakh Operatsii Sovremennykh Armii [The Operational Scope of Modern Armies]. Biblioteka Vsesoiuznogo S"ezda VNO, no. 5. Moscow: Izdatel'stvo 'Voennyi Vestnik', 1926.
- Trotskii, L.D. Kak Vooruzhalas' Revoliutsiia [How the Revolution Armed]. Moscow: Vysshii Voennyi Redaktsionnyi Sovet, 1923-25.

- _____. Moia Zhizn' [My Life]. Berlin: Izdatel'stvo 'Granit', 1930.
- _____. Stalin. Translated by C. Malamuth. New York and London: Harper & Bros. Publishers, 1941.
- Tsentral'noe Statisticheskoe Upravlenie pri Sovete Ministrov SSSR. Narodnoe Khoziaistvo SSSR 1922-1972 gg. Iubileinyi Statisticheskii Ezhegodnik [The USSR National Economy, 1922-1972. An Anniversary Statistical Yearbook]. Moscow: Izdatel'stvo 'Statistika', 1972.
- _____. Promyshlennost' SSSR. Statisticheskii Sbornik [Industry of the USSR. A Statistical Collection]. Moscow: Gosudarstvennoe Statisticheskoe Izdatel'stvo, 1957.
- _____. Strana Sovetov za 50 Let. Sbornik Statisticheskikh Materialov [The Soviet Nation After 50 Years. A Collection of Statistical Materials]. Moscow: Izdatel'stvo 'Statistika', 1967.
- Tukhachevskii, M.N. Izbrannye Proizvedeniia [Selected Works]. Compiled by G.I. Os'kin, and P.P. Chernushkov. Moscow: Voennoe Izdatel'stvo, 1964.
- _____, N.E. Varfolomeev, and E.A. Shilovskii. Armeiskaia Operatsiia. Rabota Komandovaniia i Polevogo Upravleniia [The Army Operation. The Work of the Command and Field Directorate]. Moscow and Leningrad: Gosudarstvennoe Voennoe Izdatel'stvo, 1926.
- Varfolomeev, N.E. Nastupatel'naia Operatsiia [The Offensive Operation]. Moscow: Gosudarstvennoe Voennoe Izdatel'stvo, 1937.
- _____. Udarnaia Armiia [The Shock Army]. Moscow: Gosudarstvennoe Voennoe Izdatel'stvo, 1933.
- Vasilevskii, A.M. Delo Vsei Zhizni [The Cause of a Lifetime]. Moscow: Politicheskoe Izdatel'stvo, 1974.
- Vatsetis, I. O Voennoi Doktrine Budushchego [On the Military Doctrine of the Future]. Moscow: Gosudarstvennoe Izdatel'stvo, 1923.
- Verkhovskii, A.I. Na Trudnom Perevale [At a Difficult Crossing]. Moscow: Voennoe Izdatel'stvo, 1959.
- _____. Osnovy Nashei Taktiki. Ogon', Manevr, Maskirovka [The Fundamentals of Our Tactics. Fire, Maneuver, Deception]. Moscow: Izdatel'stvo 'Voennyi Vestnik', 1928.
- Voinov, A.A., ed. Istoriia Voenного Iskusstva [A History of Military Art]. Moscow: Voennoe Izdatel'stvo, 1984.
- Volkogonov, D.A. Triumf i Tragediia. Politicheskii Portret I.V. Stalina [Triumph and Tragedy. A Political Portrait of I.V. Stalin], 2nd ed. Moscow: Izdatel'stvo 'Novosti', 1990.
- _____. Trotskii. Politicheskii Portret [Trotskii. A Political Portrait]. Moscow: Izdatel'stvo 'Novosti', 1992.
- Vol'pe, A. Frontal'nyi Udar [The Frontal Attack]. Moscow: Gosudarstvennoe Voennoe Izdatel'stvo, 1931.
- Voropaev, D.A., and A.M. Iovlev. Bor'ba KPSS za Sozdanie Voennykh Kadrov [The CPSU's Struggle for the Creation of Military Cadres], 2nd ed. Moscow: Voennoe Izdatel'stvo, 1960.

- Voronov, N.N. Na Sluzhbe Voennoi [On Military Service]. Moscow: Voennoe Izdatel'stvo, 1963.
- Voroshilov, K.E. Stat'i i Rechi [Articles and Speeches]. Edited by S. Naumov. Moscow: Partizdat TsK VKP(b), 1937.
- Wells, H.G. Russia in the Shadows. London: Hodder and Stoughton, Ltd., 1920.
- Wollenberg, E. The Red Army. Translated by C.W. Sykes. London: Secker & Warburg, 1938.
- Zaionchkovskii, A.M. Lektsii po Strategii, Chitannye na Voenno-Akademicheskikh Kursakh Vysshego Komsostava i v Voennoi Akademii RKKA 1922-23 qq. Chast' I [Lectures on Strategy, Read in the Military-Academic Courses of the High Command and in the RKKA Military Academy in 1922-23. Part I]. Moscow: Voennaia Akademiia RKKA, 1923.
- _____. Mirovaia Voina 1914-1918 [The World War, 1914-1918], 2nd ed. Moscow: Gosudarstvennoe Voennoe Izdatel'stvo, 1931.
- Zaitsov, A. 1918 God: Ocherki po Istorii Russkoi Grazhdanskoi Voiny [1918: Essays on the History of the Russian Civil War]. Paris: Privately printed, 1934.
- Zakharov, M.V. General'nyi Shtab v Predvoennye Gody [The General Staff in the Prewar Years]. Moscow: Voennoe Izdatel'stvo, 1989.
- _____. 50 Let Vooruzhennykh Sil SSSR [50 Years of the USSR Armed Forces]. Moscow: Voennoe Izdatel'stvo, 1968.
- Zhilin, P.A., ed. Russkaia Voennaia Mysl'. Konets XIX-Nachalo XX v. [Russian Military Thought. The End of the Nineteenth-Beginning of the Twentieth Centuries]. Moscow: Izdatel'stvo 'Nauka', 1982.
- _____, ed. Zarozhdenie i Razvitie Sovetskoi Voennoi Istoriografii 1917-1941 [The Birth and Development of Soviet Military Historiography, 1917-1941]. Moscow: Izdatel'stvo, 'Nauka', 1985.
- Zhukov, G.K. Vospominaniia i Razmyshleniia [Reminiscences and Reflections], 11th ed. Moscow: Izdatel'stvo 'Novosti', 1992.

B. Articles

- Ageev, A. 'Kontrnastuplenie Krasnoi Armii na Vostochnom Fronte Osen'iu 1918 Goda' [The Red Army's Fall 1918 Counteroffensive on the Eastern Front]. V-IZh, no. 11 (1982): 66-73.
- _____. 'Oborona Voisk Krasnoi Armii na Vostochnom Fronte Vesnoi 1919 Goda' [The Red Army's Defence of the Eastern Front in the Spring of 1919]. V-IZh, no. 10 (1984): 75-81.
- _____. 'Pervaia Frontovaia Operatsiia Krasnoi Armii' [The Red Army's First Front Operation]. V-IZh, no. 8 (1979): 62-67.
- _____. 'Voенно-Teoreticheskie Vzgliady N.P. Mikhnevicha' [N.P. Mikhnevich's Military-Theoretical Views]. V-IZh, no. 1 (1975): 90-95.
- _____. 'Voенно-Teoreticheskoe Nasledie A.A. Neznamova' [A.A.

- Neznamov's Military-Theoretical Heritage]. V-IZh, no. 11 (1983): 84-89.
- _____, and G. Solonitsyn. 'Razgrom Vrangelia' [The Defeat of Wrangel]. V-IZh, no. 11 (1980): 9-16.
- Algazin, A. 'Primenenie i Organizatsiia Vozdushnoi Armii' [The Employment and Organisation of an Air Army]. Voennaia Mysl' [Military Thought], no. 2 (1937): 116-40.
- _____. 'Samostoiatel'nye Vozdushnye Sily' [Independent Air Forces]. Voennaia Mysl' [Military Thought], no. 1 (1937): 68-95.
- Alksnis, Ia. 'Nachal'nyi Period Voiny' [The Beginning Period of a War]. V&R, no. 9 (1929): 3-22; no. 10: 3-15.
- _____. 'O Kharaktere Budushchei Mobilizatsii Burzhuanizmskoi Armii' [On the Character of the Future Mobilisation of Bourgeois Armies]. V&R, no. 7 (1927): 3-15.
- Amiragov, L.S. 'O Kharaktere Budushchei Voiny' [On the Character of a Future War]. V&R, Sept.-Oct. (1934): 3-17.
- Ammosov, S. 'Reidy Motomekhsodineniia' [A Motor-Mechanised Formation Raid]. V&R, no. 6 (1931): 42-58.
- _____. 'Tanki v Operatsii Proryva' [Tanks in a Breakthrough Operation]. V&R, no. 5-6 (1932): 81-91.
- Anisov, A. 'Armeiskaia Oboronitel'naia Operatsiia' [The Army Defensive Operation]. V&R, Nov.-Dec. (1934): 40-50.
- Anuchin, V.V., and O.N. Zdorov. 'Zarozhdenie i Razvitie Teorii Boevogo Primeneniia VVS (1917-1938 gg.)' [The Origin and Development of the Theory of the Combat Employment of the Air Force (1917-1938)]. V-IZh, no. 8 (1988): 19-26.
- Apanasenko, I. 'Pervaia Konnaia' [The First Cavalry Army]. V-IZh, no. 4 (1939): 35-42.
- Appen, 'Problema Narastaniia i Istoshcheniia v Grazhdanskoi Voine 1918-1920 gg.' [The Problem of Accumulation and Exhaustion in the Civil War, 1918-1920]. V&R, no. 7 (1932): 44-64.
- Avdeenko, P. 'Sovetskoe Samoloetostroenie v Gody Predvoennykh Piatiletok (1929-1940 gg.)' [Soviet Aircraft Production During the Prewar Five-Year Plans (1929-1940)]. V-IZh, no. 7 (1974): 84-89.
- Avdeev, V.A. 'Posle Mukdena i Tsusimy' [After Mukden and Tsushima]. V-IZh, no. 8 (1992): 2-9.
- _____. 'Voenno-Istoricheskie Issledovaniia v Akademii General'nogo Shtaba Russkoi Armii' [Military-Historical Research in the Russian Army's General Staff Academy]. V-IZh, no. 12 (1987): 77-80.
- Azovtsev, N. 'Otrazhenie Pervogo Nashestviia Imperializma na Stranu Sovetov' [Repelling Imperialism's First Campaign Against the Country of the Soviets]. V-IZh, no. 10 (1977): 89-95.
- _____, and A. Selianichev. 'Rukovodiashchaia Rol' Kommunisticheskoi Partii v Organizatsii Pobedy Sovetskogo Naroda v Gody Grazhdanskoi Voiny' [The Communist Party's Leading Role in Organising the Soviet People's Victory During the Civil War]. V-IZh, no. 12 (1970): 3-12.

- B., E. 'Voprosy PVO Nastupatel'noi Operatsii Udarnoi Armii' [Questions of Anti-Aircraft Defence in a Shock Army's Offensive Operation]. V&R, March-April (1935): 31-47.
- Bagramian, I. 'Dushevnyi Chelovek i Talantlivyi Voenachal'nik' [A Cordial Man and a Talented Commander]. V-IZh, no. 12 (1962): 58-68.
- Baiov, A. 'General'nyi Shtab vo Vremia Grazhdanskoi Voyny' [The General Staff During the Civil War]. Chasovoi [The Sentry], no. 84 (1932): 3-5.
- Barantsev, G. Review of Evoliutsiia Voennogo Iskusstva [The Evolution of Military Art], vol. II, by A. Svechin. V&R, no. 8 (1928): 148-56.
- Batashev, M. Review of Udarnaia Armia [The Shock Army], by N. Varfolomeev. V&R, March-April (1935): 114-24.
- Bazarevskii, A. 'Vstrechnaia Operatsiia' [The Meeting Operation]. Voennaia Mysl [Military Thought], no. 3 (1937): 97-118.
- Beliavtsev, I. 'Vosstanovlenie Voenno-Morskogo Flota SSSR v 1921-1928 Godakh' [The Restoration of the USSR's Navy, 1921-1928]. V-IZh, no. 3 (1963): 106-11.
- Belitskii, S. 'Eshelonnaia Voina' [The Rail War]. V&R, no. 10-11 (1927): 197-207.
- _____. 'K Voprosu o Strategicheskikh Rezervakh' [On the Question of Strategic Reserves]. V&R, no. 2 (1925): 14-20.
- _____. 'M.V. Frunze-Komanduiushchii Iiuzhnoi Gruppoy Vostochnogo Fronta v 1919 g.' [M.V. Frunze-the Commander of the Eastern Front's Southern Group in 1919]. V&R, no. 7-8 (1925): 17-31.
- _____. 'Podvizhnost' Sovremennykh Armii' [The Mobility of Modern Armies]. V&R, no. 11 (1930): 3-9.
- _____. Review of Mirovaia Voina 1914-1918 gg. Kampaniia 1914 Goda v Bel'gii i Frantsii [The World War, 1914-1918. The 1914 Campaign in Belgium and France], vol. II, by V.F. Novitskii. V&R, no. 7 (1928): 150-56.
- Berends. 'Taran' [The Ram]. V&R, no. 4 (1927): 93-96.
- Berkhin, I. 'O Territorial'no-Militsionnom Stroitel'stve v Sovetskoii Armii' [On Territorial-Militia Construction in the Soviet Army]. V-IZh, no. 12 (1960): 3-20.
- Biriuzov, S. 'Voenno-Teoreticheskoe Nasledstvo M.N. Tukhachevskogo' [M.N. Tukhachevskii's Military-Theoretical Heritage]. V-IZh, no. 2 (1964): 37-49.
- Bobylev, P. 'K Istorii Sozdaniia Zapadnogo Fronta (Mart 1918 g.-Fevral' 1919 g.)' [On the History of the Creation of the Western Front (March 1918-February 1919)]. V-IZh, no. 3 (1972): 32-40.
- _____. 'O Roli Zapadnogo Fronta v Period Razgroma Denikina' [On the Western Front's Role During Denikin's Defeat]. V-IZh, no. 6 (1979): 62-67.
- _____. 'Opredelenie Glavnogo Fronta Vesnoi 1919 Goda' [Determining the Main Front in the Spring of 1919]. V-IZh, no. 7 (1974): 69-75.

Bogoliubov, A. 'Razgrom Kolchaka' [The Rout of Kolchak]. V-IZh, no. 1 (1939): 9-23.

Bonch-Bruevich, M. 'Nekotorye Osnovy Operativnogo Rukovodstva v Sovremennoi Voine' [Certain Fundamentals of Operational Leadership in Modern War]. V&R, no. 12 (1927): 46-63.

_____. 'Nekotorye Problemy Budushchei Voyny' [Certain Problems of a Future War]. V&R, no. 5 (1929): 60-64.

Botner, S. 'Voennaia Podgotovka Imperialistov i Problema Oborony SSSR v Svete Osushchestvleniia Piatiletki' [The Imperialists' Military Preparations and Problems of the USSR's Defence in Light of Realizing the Five-Year Plan]. V&R, no. 2 (1930): 33-47.

Brusilov, A. 'Proryv Avstro-Germanskogo Fronta v 1916 Godu' [The Breakthrough of the Austro-German Front in 1916]. V&R, no. 4 (1927): 67-83; no. 5 (1927): 129-48.

Budennyi, S. 'Geroi Proryva Vrazheskogo Fronta' [The Heroes of the Breakthrough of the Enemy's Front]. V-IZh, no. 4 (1963): 55-63.

_____. 'Konbitsa v Sovremennoi Voine' [Cavalry in Modern War]. V&R, no. 6 (1930): 3-23.

_____. 'Moguchaia Konbitsa Proletarskoi Revoliutsii' [The Proletarian Revolution's Mighty Cavalry]. V-IZh, no. 4 (1939): 2-26.

Bushmanov, N. 'Razgrom Vrangelia v Severnoi Tavrii' [The Rout of Wrangel in the Northern Tauride]. V-IZh, no. 4 (1939): 74-105.

Burlak, B. 'Nastuplenie kak Sil'naia Forma Revoliutsionnoi Voyny' [The Offensive as a Powerful Form of Revolutionary War]. V&R, Sept.-Oct. (1935): 39-49.

Chikalin, S. 'Ob Osnovakh Primeneniia i Organizatsii Operativnykh Tankovykh Soedinenii' [On the Fundamentals of Employing and Organising Operational Tank Formations]. V&R, no. 4 (1930): 25-35.

_____. 'Organizatsiia i Ispol'zovanie Takticheskikh Tankovykh Soedinenii' [The Organisation and Employment of Armoured Tactical Formations]. V&R, no. 3 (1930): 12-28.

Daines, V. 'Konets Beloi Gvardii' [The End of the White Guard]. V-IZh, no. 10 (1989): 27-35.

_____. 'Kontrnastuplenie Iuzhnogo Fronta v Oktiabre-Noiabre 1919 Goda' [The Southern Front's Counteroffensive in October-November 1919]. V-IZh, no. 10 (1986): 64-68.

_____. 'Podavlenie Kronshtadtskogo Antisovetskogo Miatezha' [The Suppression of the Kronshtadt Anti-Soviet Mutiny]. V-IZh, no. 3 (1988): 86-90.

_____. 'Razvitie Taktiki Obshchevoiskovogo Nastupatel'nogo Boia v 1929-1941 gg.' [The Development of the Tactics of the Combined-Arms Offensive Battle, 1929- 1941]. V-IZH, no. 10 (1978): 96-101.

Danilevskii, A. 'Bor'ba V.I. Lenina s "Voennoi Oppozitsiei" na VIII S"ezde RKP(b)' [V.I. Lenin's Struggle with the 'Military Opposition' at the VIII RKP(b) Congress]. V-IZh, no. 4 (1961): 3-11.

- Danilevskii, A.F. 'Tverdaia Linia' [A Firm Line]. V-IZh, no. 4 (1989): 14-21.
- Danilov, F., and I. Kravchenko. 'U Istokov Sovetskoi Teorii Operativnogo Iskusstva (1921-1930 gg.)' [The Origin of the Soviet Theory of Operational Art (1921-1930)]. V-IZh, no. 11 (1973): 38-45.
- Danilov, V. 'General'nyi Shtab RKKA v Predvoennye Gody (1936-Iiun' 1941 g.)' [The RKKA General Staff in the Prewar Years (1936-June 1941)]. V-IZh, no. 3 (1980): 68-73.
- _____. 'Organizatsiia Strategicheskogo Rukovodstva Sovetskimi Vooruzhennymi Silami (1917-1920 gg.)' [The Organisation of Strategic Control of the Soviet Armed Forces (1917-1920)]. V-IZh, no. 3 (1988): 17-25.
- _____. Review of Voennye Spetsialisty na Sluzhbe Respubliki Sovetov 1917-1920 gg. [Military Specialists on Service to the Soviet Republic, 1917-1920], by A.G. Kavtaradze. V-IZh, no. 5 (1989): 84-85.
- _____. 'Sovershenstvovanie Sistemy Tsentral'nykh Organov Voennogo Rukovodstva v 1929-1939 gg.' [Improving the System of Central Military Control Organs, 1929-1939]. V-IZh, no. 6 (1982): 74-79.
- _____. 'Sozdanie Shtaba RKKA (Fevral' 1921-Mart 1924 g.)' [The Creation of the RKKA Staff (February 1921-March 1924)]. V-IZh, no. 9 (1977): 85-89.
- _____. 'Stroitel'stvo Tsentral'nogo Voennogo Apparata v 1921-1923 gg.' [The Construction of the Central Military Apparatus, 1921-1923]. V-IZh, no. 1 (1971): 9-16.
- Dick, C. 'Soviet Operational Art. Part 1: The Fruits of Experience'. International Defence Review XXI, no. 7 (1988): 755-61.
- _____. 'Soviet Operational Art. Part 2: The Keys to Victory'. International Defence Review XXI, no. 8 (1988): 901-08.
- Dmitriev, P. 'Ispol'zovanie Strategicheskikh Rezervov Krasnoi Armii (Fevral' 1918 g.-Fevral' 1919 g.)' [The Use of the Red Army's Strategic Reserves (February 1918-February 1919)]. V-IZh, no. 11 (1975): 64-69.
- _____. 'Ispol'zovanie Strategicheskikh Rezervov Krasnoi Armii v Osenne-Zimnei Kampanii 1919-1920 gg.' [The Use of the Red Army's Strategic Reserves in the Fall-Winter Campaign of 1919-1920]. V-IZh, no. 10 (1979): 45-49.
- _____. 'Sozdanie Strategicheskikh Rezervov Krasnoi Armii v Gody Grazhdanskoi Voyny' [The Creation of the Red Army's Strategic Reserves During the Civil War]. V-IZh, no. 6 (1974): 64-73.
- _____. 'Strategicheskie Rezervy Krasnoi Armii v Letnei Kampanii 1919 Goda' [The Red Army's Strategic Reserves in the 1919 Summer Campaign]. V-IZh, no. 7 (1977): 85-92.
- _____. 'Stroitel'stvo Sovetskogo Podvodnogo Flota v Mezhoennyi Period' [The Construction of the Soviet Submarine Fleet During the Interwar Period]. V-IZh, no. 10 (1974): 81-86.
- Domnikov, V. 'Velikii Oktiabr' i Sozdanie Sovetskikh Voennykh Kadrov' [Great October and the Creation of Soviet Military Cadres]. V-IZh, no. 11 (1967): 14-25.

- Dzhambae, N. 'Aktivnoe Prikritye v Nachal'nyi Period Voiny' [Active Cover in the Beginning Period of War]. Voennaia Mysl' [Military Thought], no. 1 (1937): 46-67.
- Efimov, N. 'Evoliutsiia Sistemy Vooruzheniia' [The Evolution of a System of Weaponry]. V&R, no. 10 (1928): 24-44.
- _____. 'Komandnyi Sostav Krasnoi Armii' [The Red Army's Command Element]. In Grazhdanskaia Voina 1918-1921 [The Civil War, 1918-1921], ed. A.S. Bubnov, S.S. Kamenev, and R.P. Eideman, II. 91-109. Moscow: Izdatel'stvo 'Voennyi Vestnik', 1928-30.
- Egorov, A. 'Goriachii Bol'shevistskii Privet Voennoi Akademii RKKA Imeni M.V. Frunze' [A Heartfelt Bolshevik Welcome to the M.V. Frunze RKKA Military Academy]. V&R, Jan.-Feb. (1934): 3-7.
- _____. 'Taktika i Operativnoe Iskusstvo RKKA na Novom Etape' [The RKKA's Tactics and Operational Art at a New Stage]. V-IZh, no. 10 (1963): 30-39.
- Eideman, R. 'Desiat' Let' [Ten Years]. V&R, no. 11 (1928): 5-14.
- _____. 'K Izucheniiu Istorii Grazhdanskoi Voiny' [On Studying the Civil War's History]. V&R, no. 2 (1932): 90-99.
- _____. 'K Voprosu o Kharaktere Nachal'nogo Perioda Voiny' [On the Question of the Beginning Period of a War]. V&R, no. 8 (1930): 11-17.
- _____. Review of Osnovy Nashei Taktiki. Ogon', Manevr, Maskirovka [The Fundamentals of Our Tactics. Fire, Maneuver, Deception], by A.I. Verkhovskii. V&R, no. 7 (1928): 148-50.
- Evseev, A. 'Voenno-Teoreticheskie Vzgliady M.V. Frunze' [M.V. Frunze's Military-Theoretical Views]. V-IZh, no. 1 (1985): 53-63.
- Favitskii, V. 'Bol'shaia Malaia Voina' [A Big Little War]. V&R, no. 2 (1925): 52-64.
- _____. 'Podvizhnaia Oborona' [Mobile Defence]. V&R, no. 3 (1932): 28-42.
- Fediukin, S. 'Ob Ispol'zovanii Voennykh Spetsialistov v Krasnoi Armii' [On the Employment of Military Specialists in the Red Army]. V-IZh, no. 6 (1962): 32-44.
- Fedorenko, L. 'K Voprosu o Konnykh Massakh' [On the Problem of Cavalry Masses]. V&R, no. 6 (1930): 24-43.
- Fedorov, A. 'Osnovnye Etapy Stroitel'stva Krasnoi Armii' [The Chief Stages of the Red Army's Construction]. V-IZh, no. 2 (1940): 3-17.
- Fedotov, A. 'Ispol'zovanie Sredstv Podavleniia v Proryve' [Employing Suppression Weapons in a Breakthrough]. V&R, no. 8-9 (1932): 44-63.
- Frolov, B. 'Russko-Iaponskaia Voina 1904-1905 gg.' [The Russo-Japanese War, 1904-1905]. V-IZh, no. 2 (1974): 83-90.
- G. Review of Protiv Reaktsionnykh Teorii na Voenno-Nauchnom Fronte [Against Reactionary Theories on the Military-Scientific Front], ed. by K. Bocharov, I. Nizhechek, and P. Suslov. V&R, no. 12 (1931): 77-81.
- G-g. 'Voina, Avtotransport i Problema Motorizatsii Armii' [War, Auto

- Transport, and the Problem of Motorising Armies]. V&R, no. 8 (1928): 93-105.
- Galaktionov, M. 'Artilleria i Tanki' [Artillery and Tanks]. V&R, no. 12 (1932): 38-64.
- _____. 'Bronia i Motor' [Armour and the Motor]. V&R, no. 4 (1932): 79-91.
- _____. 'Moto-Mekhsily i Aviatsiia v Operatsii "Kanny"' [Motor-Mechanised Forces and Aviation in a 'Cannae' Operation]. V&R, July-Aug. (1934): 26-41.
- _____. Review of Udarnaia Armia [The Shock Army], by N.E. Varfolomeev. V&R, Nov.-Dec. (1933): 106-12.
- Galistan, A. 'Vydaishchiisia Sovetskii Gosudarstvennyi i Voennyi Deiatel' [An Outstanding Soviet Political and Military Figure]. V-IZh, no. 2 (1971): 47-50.
- Gapich, N. 'Deistviia 4-1 i 13-1 Armii v Severnoi Tavrii v Oktiabre-Noiobre 1920 g.' [The Activities of the Fourth and Thirteenth Armies in the Northern Tauride, October-November, 1920]. V&R, no. 10 (1930): 64-85.
- Geronimus, A. 'Sushchnost' Krasnoi Armii kak Armii Diktatury Proletariata' [The Red Army's Essence as the Army of the Proletarian Dictatorship]. V&R, no. 2 (1931): 9-28.
- Girl', K. 'Rezervy v Razlichnye Epokhy' [Reserves in Various Eras]. V&R, no. 4 (1929): 28-40; no. 6 (1929): 17-35.
- Glagolev. 'Evoliutsiia Vzgliadov v Oblasti Taktiki Tankov za Poslednie Tri Goda' [The Evolution of Views in the Field of Tank Tactics Over the Last Three Years]. V&R, no. 3 (1928): 60-70.
- Golubev, A. 'Kak Zarozhdalsia Krymskii Front' [How the Crimean Front Arose]. V&R, no. 10 (1930): 45-63.
- _____. 'Obrashchena li Byla v Proshloe Nasha Voennaia Teoriia v 20-e Gody?' [Was Our Military Theory Focused on the Past in the '20s?]. V-IZh, no. 10 (1965): 35-47.
- _____. 'Operatsii na Okhvat i Okruzhenie v Grazhdanskoi Voine 1918- 1921 gg.' [Flanking and Encirclement Operations in the Civil War, 1918-1921]. V&R, Jan.-Feb. (1933): 4-17.
- _____. 'Vydaishchiisia Sovetskii Voennyi Teoretik' [An Outstanding Soviet Military Theoretician]. V-IZh, no. 3 (1968): 107-14.
- Gorelik, Ia. 'O Polkovodcheskoi i Voenno-Nauchnoi Deiatel'nosti Marshala Sovetskogo Soiuza M.N. Tukhachevskogo' [On Marshal of the Soviet Union M.N. Tukhachevskii's Command and Military-Scientific Activity]. V-IZh, no. 7 (1961): 45-55.
- _____. 'Predvideniia M.N. Tukhachevskogo' [M.N. Tukhachevskii's Foresight]. V-IZh, no. 9 (1988): 18-22.
- _____. 'O Voennoi i Nauchnoi Deiatel'nosti B.M. Shaposhnikova v Sovetskoi Armii' [On B.M. Shaposhnikov's Military and Scientific Activity in the Red Army]. V-IZh, no. 10 (1960): 53-60.
- _____. 'O Voenno-Teoreticheskom Nasledii M.N. Tukhachevskogo' [M.N. Tukhachevskii's Military-Theoretical Heritage]. V-IZh, no. 2 (1963): 107-14.

- Gorev, B. 'Marksizm i Leninism v Voennoi Akademii' [Marxism and Leninism in the Military Academy]. V&R, no. 11 (1928): 29-34.
- _____. 'Voennaia Istoriia i Marksizm' [Military History and Marxism]. V&R, no. 4 (1927): 43-48.
- Gorodovikov, O. '2-ia Konnaia Armiia v Severnoi Tavrii' [The Second Cavalry Army in the Northern Tauride]. V-IZh, no. 10 (1940): 109-28.
- Grebel'skii, Z. 'X S"ezd Partii o Dal'neishem Stroitel'stve Krasnoi Armii' [The X Party Congress on the Further Construction of the Red Army]. V-IZh, no. 3 (1971): 3-10.
- _____. 'XI S"ezd Partii i Dal'neishee Ukreplenie Krasnoi Armii' [The XI Party Congress and the Further Strengthening of the Red Army]. V-IZh, no. 3 (1972): 3-10.
- Grendal', V. 'Artilleriiskii Rezerv Glavnogo Komandovaniia-"ARGK"' [The High Command Artillery Reserve-'ARGK']. V&R, no. 4 (1925): 30-38.
- Gromakov, A. 'Deiatel'nost' Kommunisticheskoi Partii po Razvitiu Oboronnoi Promyshlennosti (1921-1925 gg.)' [The Communist Party's Activity in Developing the Defence Industry (1921-1925)]. V-IZh, no. 10 (1975): 84-89.
- _____. 'Politika Kommunisticheskoi Partii v Oblasti Voenno Stroitel'stva (1920-1923 gg.)' [The Communist Party's Policy in the Area of Military Construction (1920-1923)]. V-IZh, no. 6 (1970): 3-11.
- Gulevich, A. 'Imperatorskaia Nikolaevskaia Voennaia Akademiia' [The Imperial Military Academy]. Chasovoi [The Sentry], no. 93 (1932): 4-13.
- Hartgrove, J.D. 'Chronicling Soviet Military History: The Major Works of John Erickson. Russian History/Histoire Russe XII, no. 1 (1985): 95-100.
- Holder, L.D. 'Training for the Operational Level'. Parameters XVI, no. 1 (1986): 7-13.
- Iovlev, A. 'Podgotovka Komandnykh i Politicheskikh Kadrov Sovetskoi Armii v 1929-1933 Godakh' [The Training of the Soviet Army's Command and Political Cadres, 1929-1933]. V-IZh, no. 5 (1960): 63-75.
- _____. 'Sovershenstvovanie Voenno-Uchebnykh Zavedenii v 1921-1928 gg.' [The Improvement of Military-Pedagogical Institutions, 1921-1928]. V-IZh, no. 1 (1975): 93-98.
- _____. 'Stanovlenie i Razvitie Voenno-Uchebnykh Zavedenii Krasnoi Armii (1918-1920 gg.)' [The Establishment and Development of Military-Pedagogical Institutions in the Red Army (1918-1920)]. V-IZh, no. 9 (1974): 86-90.
- _____. 'Tekhnicheskoe Perevooruzhenie Krasnoi Armii v Gody Pervoi Piatiletki' [The Red Army's Technical Rearmament During the First Five-Year Plan]. V-IZh, no. 12 (1964): 3-13.
- _____, and A. Cheremnykh. 'Razvitie Voenno-Uchebnykh Zavedenii v 1929-1937 gg.' [The Development of Military-Pedagogical Institutions, 1929-1937]. V-IZh, no. 7 (1980): 72-76.
- Isserson, G. 'Istoricheskie Kornii Novykh Form Boia' [The Historical Roots of the New Forms of Battle]. Voennaia Mysl' [Military

- Thought], no. 1 (1937): 3-27.
- _____. 'Kharakter Upravleniia Sovremennym Boem' [The Character of Directing the Modern Battle]. V&R, no. 5 (1931): 56-62.
- _____. 'Nachalo Boevogo Puti' [The Beginning of a Combat Journey]. V-IZh, no. 2 (1963): 71-75.
- _____. 'Razvitie Teorii Sovetskogo Operativnogo Iskusstva v 30-e Gody' [The Development of the Theory of Soviet Operational Art in the '30s]. V-IZh, no. 1 (1965): 36-46; no. 3: 48-61.
- _____. 'Zapiski Sovremennika o M.N. Tukhachevskom' [A Contemporary's Notes on M.N. Tukhachevskii]. V-IZh, no. 4 (1963): 64-78.
- Ivanov, N. 'Bor'ba s Obkhodom Flangom i Proryvom' [Combatting the Turning Movement and Breakthrough]. V&R, May-June (1935): 56-69.
- _____. 'Udary po Skhodiashchimsia Napravleniiam' [Blows Along Converging Axes]. V&R, March-April (1935): 14-30.
- Jacobs, W.D. 'The Art of Operations'. Army XII, no. 4 (1961): 60-64.
- K., V. Review of Protiv Men'shevistvuiushchego Idealizma v Voprosakh Voiny i Voennogo Dela [Against Menshevikizing Idealism in Questions of War and Military Affairs]. V&R, no. 3 (1932): 82-86.
- Kakurin, N. 'Review of L'vov-Varshava [L'vov-Warsaw], by A. Egorov. V&R, no. 5 (1929): 144-55.
- _____. 'Vnutrennie Operatsionnye Linii v Grazhdanskoi Voine' [Internal Operational Lines in the Civil War]. V&R, no. 4 (1928): 65-85.
- Kalinovskii, K. 'Bystrokhodnye Tanki vo Vstrechnom Boiu' [High-Speed Tanks in the Meeting Battle]. V&R, no. 1 (1929): 61-68.
- _____. 'Tanki v Oborone' [Tanks in Defence]. V&R, no. 8 (1927): 117-24.
- Kamenev, S. 'K Desiatoi Godovshchine' [Towards the Tenth Anniversary]. V&R, no. 2 (1928): 3-11.
- Kapustin, N. 'Oborona v Pozitsionnoi Voine' [Defence in a Positional War]. V&R, no. 7-8 (1925): 156-76.
- Kartavtsev, I. 'Prepodavanie Istorii Voennogo Iskusstva v Voennoi Akademii Imeni M.V. Frunze v 1918-1978 gg.' [Teaching the History of Military Art in the Frunze Military Academy, 1918-1978]. V-IZh, no. 12 (1979): 57-61.
- Kavtaradze, A. 'Iiun'skoe Nastuplenie Russkoi Armii v 1917 Godu' [The Russian Army's June 1917 Offensive]. V-IZh, no. 5 (1967): 111-17.
- _____. 'Iz Istorii Russkogo General'nogo Shtaba' [From the History of the Russian General Staff]. V-IZh, no. 7 (1972): 87-92.
- _____. 'Iz Istorii Russkogo General'nogo Shtaba (Avgust 1914 Goda- Mai 1918 Goda)' [From the History of the Russian General Staff (August 1914-May 1918)]. V-IZh, no. 3 (1976): 103-09.
- _____. 'Iz Istorii Russkogo General'nogo Shtaba (1909-Iiul' 1914

- gg.)' [From the History of the Russian General Staff (1909-July 1914)]. V-IZh, no. 12 (1974): 80-86.
- Kazakov, M. 'O Liudskikh Rezervakh Krasnoi Armii v Gody Grazhdanskoi Voyny' [The Red Army's Personnel Reserves During the Civil War]. V-IZh, no. 9 (1973): 54-60.
- Kazarnovskii, Iu. 'Sozdanie i Ispol'zovanie Udarnykh Armii' [The Creation and Use of Shock Armies]. V-IZh, no. 8 (1977): 86-90.
- Kellerman, G. 'Nastuplenie Tankov' [The Tank Attack]. V&R, no. 8-9 (1932): 64-75.
- Khor'kov, A. 'Ukreplennye Raiony na Zapadnykh Granitsakh SSSR' [Fortified Regions on the USSR's Western Borders]. V-IZh, no. 12 (1987): 47-54.
- Khvesin, T. 'Deistviia Mozyrskoi Gruppy v 1920 Godu' [The Mozyr' Group's Activities in 1920]. V&R, no. 2 (1928): 113-31.
- Kiselev, I. 'Motorizovanno-Mekhanizirovannye Soedineniia' [Motor-Mechanised Formations]. V&R, no. 5 (1930): 41-64.
- _____. 'Riad Kraine Nevernykh Polozhenii' [A Series of Extremely Wrong Tenets]. V&R, no. 8-9 (1930): 75-84.
- _____. 'K Voprosu ob Ispol'zovanii Russkoi Armii dlia Nuzhd Oborony Sovetskoi Respubliki' [On the Question of Using the Russian Army for Defending the Soviet Republic]. V-IZh, no. 12 (1961): 24-35.
- Kliatskin, S. 'Problemy Voennogo Stroitel'stva na Zavershaiushchem Etape Grazhdanskoi Voyny' [Problems of Military Construction at the Conclusion of the Civil War]. V-IZh, no. 3 (1964): 3-16.
- Kolenkovskii, A. 'Nastupatel'naia Operatsiia Protiv Ostanovivshevogo Protivnika' [The Offensive Operation Against an Enemy who has Halted]. V&R, no. 7 (1931): 33-41.
- Kolesnichenko, I. 'K Voprosu o Konflikte v Revvoensovete Iuzhnogo Fronta (Sentiabr'-Oktiabr' 1918 Goda)' [On the Question of the Conflict in the Southern Front's Revolutionary Military Council (September-October 1918)]. V-IZh, no. 2 (1962): 39-47.
- Kolossovskii, V. 'Strategiia Vozdushnoi Voyny' [The Strategy of Air War]. V&R, no. 7-8 (1928): 128-41.
- Korneev, G. Review of O Nastupatel'noi Operatsii Armii, Vkhodiashego v Sostav Fronta [On the Offensive Operation of an Army as Part of a Front], by A. Kolenkovskii. V&R, no. 5 (1930): 139-42.
- Korotkov, I. 'Obobshchenie Opyta Voin v Mezhoennyyi Period' [Generalizing the Experience of Wars in the Interwar Period]. V-IZh, no. 6 (1976): 95-100.
- _____. 'V Reshaiushchikh Boiakh Protiv Vrangelia' [In the Decisive Battles Against Wrangel]. V-IZh, no. 10 (1940): 87-108.
- _____. 'Voenno-Nauchnye Zhurnaly kak Istoricheskii Istochnik' [Military-Scientific Journals as an Historical Source]. V-IZh, no. 1 (1970): 83-92.
- _____. 'Voprosy Obshchei Taktiki v Sovetskoi Voennoi Istorii (1918-1941 gg.)' [Questions of General Tactics in Soviet Military Historiography (1918-1941)]. V-IZh, no. 12 (1977): 86-91.

- Kosogov, I. 'Konnaia Armia na Vrangelevskom Fronte' [The Cavalry Army on the Wrangel Front]. V&R, Sept.-Oct. (1935): 13-20.
- Kostylev, V. 'Stanovlenie i Razvitie Vozdushno-Desantnykh Voisk' [The Making and Development of the Airborne-Landing Troops]. V-IZh, no. 9 (1975): 80-85.
- Kovalev, I. 'Aviatsionnye Rezervy' [Aviation Reserves]. Voennaia Mysl' [Military Thought], no. 3-4 (1937): 128-42.
- _____. 'Zadachi Bombardirovochnoi Aviatsii' [Tasks of Bomber Aviation]. V&R, no. 5 (1928): 39-47.
- Kozlov, S. 'K Voprosu o Razvitii Russkoi Voennoi Teorii v Khode Pervoi Mirovoi Voyny' [On the Question of the Development of Russian Military Theory During the First World War]. V-IZh, no. 9 (1970): 28-36.
- Kr-v, N. 'Vpolzanie v Voinu' [Slipping into War]. V&R, March-April (1934): 34-37.
- Krasil'nikov, V. 'Nekotorye Voprosy Voennonauchnoi Raboty' [Certain Questions of Military-Scientific Work]. V&R, no. 12 (1931): 45-49.
- _____. Review of K Kharakteristike Novykh Tendentsii v Voennom Dele [Towards a Description of the New Tendencies in Military Affairs], by B. Fel'dman. V&R, no. 1 (1932): 96-104.
- Kravchenko, I. 'Kharakternye Cherty Nastupatel'nykh Operatsii Krasnoi Armii v Grazhdanskoi Voine' [Characteristic Features of the Red Army's Offensive Operations in the Civil War]. V-IZh, no. 3 (1976): 95-100.
- _____. 'Kharakternye Cherty Operativnogo Iskustva i Taktiki RKKA v Gody Grazhdanskoi Voyny' [Characteristic Features of the RKKA's Operational Art and Tactics During the Civil War]. In Iz Istorii Grazhdanskoi Voyny i Interventsii 1917-1922 gg. [From the History of the Civil War and Intervention, 1917-1922], ed. I.I. Mints, pp. 203-15. Moscow: Izdatel'stvo 'Nauka', 1974.
- _____. 'Vedenie Oborony Krasnoi Armiei v Khode Grazhdanskoi Voyny' [The Red Army's Waging of Defence During the Civil War]. V-IZh, no. 12 (1977): 74-78.
- Kremkov, S. 'Operativnye Nabroski' [Operational Sketches]. V&R, no. 8-9 (1930): 38-58.
- Krupchenko, I. 'Razvitie Tankovykh Voisk v Period Mezhdru Pervoi i Vtoroi Mirovymi Voinami' [The Development of Tank Forces Between the First and Second World Wars]. V-IZh, no. (1968): 31-45.
- Kryzhanovskii, V. 'Legkie Motomekhanizirovannye Soedineniia v Armeiskoi Operatsii' [Light Motor-Mechanised Formations in an Army Operation]. V&R, no. 10-11 (1931): 45-75.
- _____. 'Nastuplenie Shturmvoi Pekhoty Motorizovannogo Tipa na Oboroniashchegosia Protivnika v Manevrennoi Voine' [Motorised Assault Infantry's Offensive Against a Defender in Mobile Warfare]. V&R, no. 8-9 (1932): 64-75.
- _____. 'Samostoiatel'noe Motomekhanizirovannoe Soedinenie na Otkrytom Flange Armii v Nastupatel'noi Operatsii' [An Independent Motor-Mechanised Formation on an Army's Open Flank During an Offensive Operation]. V&R, no. 1 (1932): 13-33.

Kuchinskii, D. 'Otdel'naia Armiia' [The Independent Army]. V&R, no. 4 (1927): 117-24.

Kudriavtsev, A. 'Operativnyi Otskok kak Odnazh iz Form Uskol'zaniia iz-pod Uudara Protivnika' [The Operational Rebound as One of the Forms of Evading the Enemy's Blow]. V&R, no. 4 (1929): 3-27.

Kuksha. 'Vzaimodeistvie Tankov DPP i DD s Aviatsiei i Artilleriei pri Proryve Oboronitel'noi Polosy Protivnika v Manevrennoi Voine' [Cooperation of DPP and DD Tanks with Aviation and Artillery in Breaking Through the Enemy's Defensive Zone in a Maneuver War]. V&R, no. 1 (1932): 1-12.

Kutiakov, I. 'Operativno-Takticheskie Uroki Kievskoi Operatsii 1920 g.' [Operational-Tactical Lessons of the Kiev Operation, 1920]. V&R, March-April (1935): 48-64.

Kuz'min, N. 'Ob Odnoi Nevypolnennoi Direktive Glavkoma' [About One of the Commander-in-Chief's Unfulfilled Directives]. V-IZh, no. 9 (1962): 49-66.

_____. 'Voennyi Vopros na VIII S"ezde Partii' [The Military Question at the VIII Party Congress]. Voprosy Istorii KPSS [Problems of CPSU History], no. 6 (1958): 174-88.

Ladukhin, V. 'Nachal'nik Polevogo Shtaba Revvoensoveta Respubliki' [The Chief of the Revolutionary Military Council of the Republic's Field Staff]. V-IZh, no. 4 (1972): 59-64.

Lapchinskii, A. 'Aviatsiia nad Polem Srazheniia' [Aviation Over the Battlefield]. V&R, no. 11 (1928): 141-52.

_____. 'Deistviia Aviatsii v Nachal'nom Periode Voiny' [Air Activities in the Beginning Period of a War]. V&R, no. 6 (1929): 55-66.

_____. 'Osnovnye Voprosy Sovremennoi Aviatsii' [Fundamental Questions of Modern Aviation]. Voennaia Mysl' [Military Thought], no. 3-4 (1937): 85-95.

_____. 'Vozdushnaia Voina Budushchego' [A Future Air War]. V&R, no. 3 (1931): 3-15.

_____. 'Vozdushnye Desanty' [Airborne Landings]. V&R, no. 6 (1930): 81-94.

Leer, G. 'Vyasnenie Nekotorykh Dannyykh, Otnosiashchikhsia do Slozhnykh Operatsii Massovykh Armii, na Osnovanii Opyta Osenne-go Pokhoda 1813 Goda' [An Explanation of Certain Facts, Relating to the Complex Operations of Mass Armies, on the Basis of the 1813 Fall Campaign]. Voennyi Sbornik [Military Collection], no. 3 (1888): 45-98.

Leonov, K. 'Protivovozdushnaia Oborona Vnutrennei Territorii Strany' [The Anti-Aircraft Defence of the Country's Internal Territory]. Voennaia Mysl' [Military Thought], no. 3-4 (1937): 96-116.

Levichev, V. '"Genshtab" i Voennaia Akademiia' [The 'General Staff' and the RKKA Military Academy]. V&R, no. 7 (1928): 74-77.

Lobov, V. 'Aktual'nye Voprosy Razvitiia Sovetskoi Teorii Voennoi Strategii 20-kh--Serediny 30-kh Godov' [Pressing Questions of the Development of the Soviet Theory of Military Strategy, From the '20s to the Middle of the '30s]. V-IZh, no. 2 (1989): 41-50.

- Lomov, N. 'General Armii A.I. Antonov' [Army General A.I. Antonov]. V-IZh, no. 9 (1976): 115-21.
- _____. 'Marshal Sovetskogo Soiuzu B.M. Shaposhnikov' [Marshal of the Soviet Union B.M. Shaposhnikov]. V-IZh, no. 9 (1982): 54-57.
- _____. Review of Voprosy Strategii i Operativnogo Iskusstva v Sovetskikh Voennykh Trudakh (1917-1940 gg.) [Problems of Strategy and Operational Art in Soviet Military Works (1917-1940)], ed. by A.B. Kadishev. In V-IZh, no. 1 (1968): 101-07.
- Ludri, I. 'Morskie Operatsii' [Naval Operations]. Voennaia Mysl' [Military Thought], no. 3-4 (1937): 85-95.
- Luttwak, E. 'The Operational Level of War'. International Security V, no. 3 (1980-81): 61-69.
- Malevskii, A. 'Mekhanizatsiia Sovremennykh Armii' [The Mechanisation of Modern Armies]. Voennaia Mysl' [Military Thought], no. 3-4 (1937): 117-27.
- _____. 'Osnovy Upravleniia Moto-Mekhanizirovannymi Soedineniiami' [Fundamentals of Commanding Motor-Mechanised Formations]. Voennaia Mysl' [Military Thought], no. 2 (1937): 87-101.
- Marieviskii, I. 'K Dvadtsatiletiiu Pobedy nad Panskoi Pol'shei' [On the Twentieth Anniversary of the Victory Over Gentry Poland]. V-IZh, no. 5 (1940): 3-24.
- _____. 'Operativnyi Plan Razgroma Belopoliakov na Ukraine v 1920 Godu' [The Operational Plan for Defeating the White Poles in Ukraine in 1920]. V-IZh, no. 5 (1939): 124-40.
- _____. 'Stanovlenie i Razvitie Teorii Operativnogo Iskusstva' [The Birth and Development of the Theory of Operational Art]. V-IZh, no. 3 (1962): 26-40.
- _____, and S. Shishkin. 'O Nekotorykh Voprosakh Sovetskoi Voennoi Strategii v Grazhdanskoi Voine v SSSR (1917-1920 gg.)' [On Certain Questions of Soviet Strategy in the Civil War in the USSR (1917-1920)]. V-IZh, no. 3 (1962): 26-40.
- Marinov, A. 'U Istokov Voenno-Istoricheskoi Literatury o Grazhdanskoi Voine' [At the Birth of Military-Historical Literature About the Civil War]. V-IZh, no. 6 (1980): 76-79.
- Matsulenko, V. 'Razvitie Taktiki Nastupatel'nogo Boia' [The Development of Offensive Battle Tactics]. V-IZh, no. 2 (1968): 28-46.
- Medvedev, R. 'O Smerti M.V. Frunze i F.E. Dzerzhinskogo' [On the Death of M.V. Frunze and F.E. Dzerzhinskii]. V-IZh, no. 3 (1989): 54-61.
- Melikov, V. 'Geroicheskaia Oborona Tsaritsyna' [The Heroic Defence of Tsaritsyn]. Voennaia Mysl' [Military Thought], no. 2 (1937): 3-33.
- _____. 'Konnye Massy v Grazhdanskoi Voine' [Cavalry Masses in the Civil War]. V&R, July-Aug. (1933): 3-16.
- _____. 'Lenin i Stalin-Organizatory Pobed Grazhdanskoi Voiny' [Lenin and Stalin-Organisers of the Civil War's Victories]. V-IZh, no. 5 (1939): 6-47.
- _____. Review of Mozg Armii [The Brain of the Army], by B.M. Shaposhnikov. V&R, no. 7 (1929): 137-46.

- _____. 'Srazhenie na Visle v Svete Opyta Maisko-Avgustovskoi Kampanii 1920 g.' [The Battle of the Vistula in Light of the Experience of the May-August 1920 Campaign]. V&R, no. 10 (1930): 9-44.
- _____. 'Tvorcheskii Voenno-Nauchnyi Put' V. Triandafillova i K. Kalinovskogo' [V. Triandafillov's and K. Kalinovskii's Creative Military-Scientific Path]. V&R, no. 8 (1931): 3-10.
- _____. 'Vtoraia Marna' [The Second Marne]. V&R, no. 5 (1931): 3-33.
- Meretskov, K. 'Komandarm 1 Ranga I.P. Uborevich' [Army Commander First Class I.P. Uborevich]. V-IZh, no. 9 (1962): 74-90.
- Mezheninov, S. 'Boevaia Aviatsiia' [Combat Aviation]. V&R, no. 1 (1929): 14-31.
- Mialkovskii, A. 'Udarnaia Armiia' [The Shock Army]. V&R, no. 2 (1930): 48-68.
- Mikulin, V. Review of L'vov-Varshava [L'vov-Warsaw], by A.I. Egorov. V&R, no. 10 (1929): 141-50.
- Molodtsygin, M. '120 Dnei Narkomvoena' [The People's Commissar of War's 120 Days]. V-IZh, no. 8 (1989): 46-62.
- Movchin, N. 'Komplektovanie Krasnoi Armii v 1918-1920 gg.' [The Manning of the Red Army, 1918-1920]. In Grazhdanskaia Voina 1918-1921 [The Civil War, 1918-1921], ed. A.S. Bubnov, S.S. Kamenev, and R.P. Eideman, II. 75-90. Moscow: Izdatel'stvo 'Voennyi Vestnik', 1928-30.
- Murakhver, N. 'Podgotovka Komandnykh Kadrov Krasnoi Armii v Gody Grazhdanskoi Voyny v SSSR (1917-1920 gg.)' [Training the Red Army's Command Cadres During the Civil War in the USSR (1917-1920)]. V-IZh, no. 6 (1940): 72-87.
- Nastusevich, Ia. Review of The Reformation of War, by J.F.C. Fuller. V&R, no. 4 (1932): 100-06.
- Naumov, N. 'Teoriia Proryva Oborony Protivnika v Predvoennye Gody' [The Theory of Breaking Through the Enemy's Defence During the Prewar Years]. V-IZh, no. 1 (1975): 57-63.
- Nenarokov, A. 'Istoriik Grazhdanskoi Voyny' [A Historian of the Civil War]. V-IZh, no. 11 (1965): 42-49.
- Nikitin, E. 'KPSS i Stroitel'stvo Sovetskikh Vooruzhennykh Sil v Mezhuvoennyi Period' [The CPSU and the Construction of the Soviet Armed Forces in the Interwar Period]. V-IZh, no. 10 (1977): 95-101.
- Nikolin, I. 'Piatiletka i Oborona' [The Five-Year Plan and Defence]. V&R, no. 5 (1929): 3-16.
- Nizhichek, I. 'Politika i Voina' [Politics and War]. V&R, Jan.-Feb. (1933): 30-48.
- Novikov, G. Review of Marna, Visla, Smirna [The Marne, the Vistula, Smyrna], by V.A. Melikov. V&R, no. 5 (1928): 154-60.
- Novitskii, F. 'Kontrudar po Kolchaku' [The Counterblow Against Kolchak]. V-IZh, no. 10 (1940): 29-55.
- Novitskii, V. 'Bor'ba za Kharakter Budushchei Voyny' [The Struggle for the Character of a Future War]. V&R, no. 3 (1929): 3-13.

- _____. 'Deistviia Aviatsii v Nachal'nom Periode Voiny' [Aviation Activities in the Beginning Period of a War]. V&R, no. 9 (1929): 23-31.
- _____. 'Desiat' Let Prepodavaniia Voennoi Istorii v Voennoi Akademii RKKA' [Ten Years of Teaching Military History in the RKKA Military Academy]. V&R, no. 11 (1928): 66-77.
- _____. Review of Strategiia [Strategy], 2nd ed., by A.A. Svechin. V&R, no. 1 (1928): 152-58.
- _____. 'Voennomorskie Sily v Nachal'nyi Period Voiny' [Naval Forces in the Beginning Period of a War]. V&R, May-June (1935): 46-55.
- Nozdrunov. 'Pochemu ne Udalos' Okruzhit' Pol'skuiu Armiiu 4-7 Iiulia 1920 Goda na Zapadnom Fronte' [Why we Failed to Encircle the Polish Army on the Western Front, 4-7 July 1920]. V&R, no. 7 (1930): 78-100.
- Ogorodnikov, F. 'Krizisy Bol'shikh Srazhenii' [Crises of Great Battles]. V&R, no. 7 (1928): 16-28.
- Pauka, I. 'Eshche o Kontrudare Iugo-Zapadnogo Fronta v Mae-Iiune 1920 g.' [Once More About the Southwestern Front's May-June 1920 Counterblow]. V&R, May-June (1935): 15-35.
- Papirmeister, L. 'Partorganizatsiia Voennoi Akademii za 10 Let' [The Military Academy's Party Organisation After 10 Years]. V&R, no. 11 (1928): 35-49.
- Pavlenko, N. 'Iz Istorii Razvitiia Teorii Strategii' [From the History of the Development of the Theory of Strategy]. V-IZh, no. 10 (1964): 104-16.
- _____. 'Nekotorye Voprosy Razvitiia Teorii Strategii v 20-kh Godakh' [Certain Problems of the Development of Strategic Theory in the '20s]. V-IZh, no. 5 (1966): 10-26.
- Petrov, Iu. 'Deiatel'nost' Kommunisticheskoi Partii po Provedeniiu Edinonachaliia v Vooruzhennykh Silakh (1925-1931 Gody)' [The Communist Party's Activity in Carrying out Unity of Command in the Armed Forces (1925-1931)]. V-IZh, no. 5 (1963): 12-23.
- Pfaff, I. 'Praga i Delo o Voennom Zagavore' [Prague and the Case of the Military Plot]. V-IZh, no. 11 (1988): 47-56; no. 12 (1988): 61-69.
- Pliachenko, P. 'Trudy po Teorii Boevogo Primeneniia Sovetskikh VVS (1918-1940 gg.)' [Works on the Combat Employment of the Soviet Air Force (1918-1940)]. V-IZh, no. 8 (1970): 82-88.
- Ponomarev, A. '"Nel'zia Stroit' Armiiu bez Repressii"' ['One Cannot Build an Army Without Repressions']. V-IZh, no. 8 (1989): 46-62; no. 10 (1989): 36-62.
- Protopopov, A. 'Otkhod III Pol'skoi Armii ot Kiev v Iiune 1920 g.' [The Polish Third Army's Retreat From Kiev in June 1920]. V&R, no. 7 (1929): 109-19; no. 7 (1929): 27-37.
- Pugachev, S. Review of Osnovy Nashei Taktiki. Ogon', Manevr, Maskirovka [The Fundamentals of Our Tactics. Fire, Maneuver, Deception], by A.I. Verkhovskii. V&R, no. 7 (1928): 145-48.
- Ramanichev, N. 'Razvitie Teorii i Praktiki Boevogo Primenenie Vozdushno-Desantnykh Voisk v Mezhuvoennyi Period' [The Development of the Theory and Practice of Employing Airborne-Landing

- Troops in the Interwar Period]. V-IZh, no. 10 (1982): 72-77.
- Rostunov, I. 'Memuary Brusilova kak Istoricheskii Istochnik' [Brusilov's Memoirs as a Historical Source]. V-IZh, no. 8 (1972): 97-104.
- _____. 'Sovetskaia Voennaia Istorografiia v Mezkhvoennyi Period' [Soviet Military Historiography in the Interwar Period]. V-IZh, no. 11 (1967): 86-93.
- _____. 'U Istokov Sovetskoi Voennoi Istorigrafii' [The Sources of Soviet Military Historiography]. V-IZh, no. 8 (1967): 84-96.
- _____. 'Uroki Russko-Iaponskoi Voiny 1904-1905 gg.' [Lessons of the Russo-Japanese War, 1904-1905]. V-IZh, no. 2 (1984): 73-79.
- A. Rotermeľ. 'Review of Kharakter Operatsii Sovremennykh Armii [The Character of Operations of Modern Armies], by V.K. Triandafillov. V&R, no. 3 (1930): 140-47.
- Rymshan, M. 'Revvoensovet Respubliki za Desiat' Let' [The Republic's Revolutionary Military Council After Ten Years]. V&R, no. 2 (1928): 42-52.
- S. 'Artilleriia pri Proryve' [Artillery in the Breakthrough]. V&R, no. 9 (1931): 14-34.
- _____. 'Obshchevoiskovoi Boi' [The Combined-Arms Battle]. V&R, no. 8-9 (1932): 1-14.
- Salitan, I. 'Operativnaia Deiatel'nost' Armeiskoi Konnitsy po Opytu Voiny s Pol'shei 1920 g.' [Army Cavalry's Operational Activity According to the Experience of the Polish War of 1920]. V&R, no. 12 (1928): 67-86.
- Samoilov, A. 'Deiatel'nost' Kommunisticheskoi Partii po Osushchestvleniiu Voennoi Reformy 1924-1925 gg.' [The Communist Party's Activity in Carrying out the Military Reform (1924-1925)]. V-IZh, no. 11 (1985): 60-64.
- Savinov, I. 'Operatsii Okruzheniia' [Encirclement Operations]. V&R, July-Aug. (1934): 15-25.
- Savinskii, M. 'Zhurnal "Voennaia Mysl' i Revoliutsiia" kak Istochnik po Istorii Sovetskikh Vooruzhennykh Sil' [The Journal 'Military Thought and Revolution' as an Historical Source on the Soviet Armed Forces]. V-IZh, no. 2 (1974): 100-05.
- Savushkin, R. 'Evoliutsiia Vzgliadov na Oboronu v Mezkhvoennye Gody' [The Evolution of Defensive Views in the Interwar Years]. V-IZh, no. 1 (1987): 37-42.
- _____. 'K Voprosu o Vozniknovenii i Razvitii Operatsii' [On the Question of the Origin and Development of the Operation]. V-IZh, no. 5 (1979): 78-82.
- _____. 'K Voprosu o Zarozhdenii Teorii Posledovatel'nykh Nastupatel'nykh Operatsii (1921-1929 gg.)' [On the Problem of the Conception of the Theory of Consecutive Offensive Operations (1921-1929)]. V-IZh, no. 5 (1983): 77-83.
- _____. 'Zarozhdenie i Razvitie Sovetskoi Voennoi Doktriny' [The Origin and Development of Soviet Military Doctrine]. V-IZh, no. 2 (1988): 19-26.

- _____, and N. Ramanichev. 'Razvitie Taktiki Obshchevoiskovogo Boia v Period Mezhdz Grazhdanskoi i Velikoi Otechestvennoi Voinami' [The Development of Combined-Arms Battle Tactics in the Period Between the Civil and Great Patriotic Wars]. V-IZh, no. 11 (1985): 60-64.
- Schneider, J. 'Theoretical Implications of Operational Art'. Military Review LXX, no. 9 (1990): 17-27.
- Sediakin, A. Review of Evoliutsiia Operativnogo Iskusstva [The Evolution of Operational Art], by G.S. Isserson. V&R, Jan.-Feb. (1933): 113-18.
- _____. 'Tanki i Protivotankovaia Oborona' [Tanks and Anti-Tank Defence]. V&R, Nov.-Dec. (1933): 29-36.
- Shatsillo, K. 'Podgotovka Tsarizmom Vooruzhennykh Sil k Pervoi Mirovoi Voine' [Tsarism's Preparation of the Armed Forces for the First World War]. V-IZh, no. 9 (1974): 91-96.
- Sheideman, E. 'Deistviia Konnogo Korpusa v Proryve Nepriatel'skogo Fronta' [A Cavalry Corps' Activities in Breaking Through the Enemy's Front]. V&R, no. 3 (1930): 40-64.
- _____. 'Vzaimodeistvie Konnitsy s Motomekhanizirovannymi Soedineniami' [The Interaction of Cavalry with Motor-Mechanised Formations]. V&R, no. 6 (1930): 44-59.
- Shelakhov, G. 'Problema Vstrechnogo Boia' [The Problem of the Meeting Battle]. V&R, July-Aug. (1935): 60-70.
- _____, and Iu. Geller. 'O Polkovodcheskoi i Voenno-Organizatorskoi Deiatel'nosti I.E. Iakira' [On I.E. Iakir's Command and Military-Organisational Activity]. V-IZh, no. 5 (1962): 25-43.
- Sherstiuk, A. 'Razvitie Teorii Boevogo Primeneniia Sredstv Protivo-vozdushnoi Oborony (1917-1941 gg.)' [The Development of the Theory of the Combat Employment of Anti-Aircraft Defensive Weapons (1917-1941)]. V-IZh, no. 4 (1988): 74-77.
- Shilovskii, E. 'Evoliutsiia Akademicheskoi Podgotovki' [The Evolution of Academic Instruction]. V&R, no. 11 (1928): 15-28.
- _____. 'K 10-mu Uchebnomu Godu' [Towards the Tenth Academic Year]. V&R, no. 7 (1927): 88-96.
- _____. 'Nachal'nyi Period Voiny' [The Beginning Period of a War]. V&R, Sept.-Oct. (1933): 3-11.
- _____. 'O Tekhnicheskoi Storone Upravleniia Armii v Grazhdanskuiu Voinu' [On the Technical Aspects of Army Control in the Civil War]. Voennaia Nauka i Revoliutsiia [Military Science and Revolution], no. 2 (1922): 13-27.
- Shishkin, S. 'Kommunisticheskaia Partia-Organizator Pobed Sovetskoi Respubliki nad Interventami i Belogvardeitsami v 1920 Godu' [The Communist Party-the Organiser of the Soviet Republic's Victories Over the Interventionists and White Guards in 1920]. V-IZh, no. 11 (1970): 26-32.
- _____. 'O Planakh Bor'by s Armiei Denikina [About the Plans for Fighting Denikin's Army]. V-IZh, no.2 (1963): 21-36.
- Shpektorov, N. 'Vysshee Upravlenie v Imperialisticheskoi Koalitsionnoi Voine' [Higher Control in the Imperialist Coalition War]. V&R, no. 6 (1927): 14-30.

- Shukevich, I. 'Taktika i Oruzhie Budushchego' [Tactics and the Weaponry of the Future]. V&R, no. 10 (1929): 38-62.
- Shvarts, M. 'K Postanovke Voprosa Issledovaniia Grazhdanskoi Voiny 1917-21 gg.' [On Formulating the Problem of Studying the Civil War, 1917-21]. V&R, no. 1 (1928): 48-60.
- _____. 'Nekotorye Uroki Varshavskoi Operatsii 1920 g.' [Certain Lessons of the 1920 Warsaw Operation]. V&R, no. 4 (1931): 34-60.
- Simonov, K. 'Zametki k Biografii G.K. Zhukova' [Notes Towards a Biography of G.K. Zhukov]. V-IZh, no. 6 (1987): 46-54; no. 7: 45-56; no. 9: 48-56; no. 10: 56-63; no. 12: 40-46.
- Smirnov, A. 'K Voprosu ob Operativnom Iskusstve v Grazhdanskuiu Voinu 1918-1920 gg.' [On the Problem of Operational Art in the Civil War, 1918-1920]. V&R, Jan.-Feb. (1933): 18-29.
- Smirnov, P. 'Pervye Piatiletki i Voenno-Tekhnicheskaya Politika Partii' [The First Five-Year Plans and the Party's Military-Technical Policy]. V-IZh, no. 4 (1979): 76-79.
- Sokolov, G. 'Problema Reorganizatsii Konnitsy' [The Problem of Reorganising the Cavalry]. V&R, no. 8-9 (1930): 59-74.
- _____. 'Sovremennaya Zavesa i Voprosy Strategicheskogo Prikrityiia' [The Modern Screen and Questions of Strategic Cover]. V&R, no. 4 (1928): 15-21.
- Sokolov-Strakhov, K. 'K.E. Voroshilov o Kharaktere Sovremennoi Voiny' [K.E. Voroshilov on the Character of Modern War]. V&R, no. 2 (1931): 3-8.
- _____. 'Neobkhodima Korennaya Reorganizatsiia Voenno-Issledovatel'skogo Dela' [A Radical Reorganisation of Military-Research is Needed]. V&R, no. 9 (1931): 62-65.
- Solov'ev, V., and A. Tsaritsyn. 'Stalinskoe Uchenie o Voine i Armii' [Stalinist Teachings on War and the Army]. V-IZh, no. 5 (1939): 58-70.
- Spirin, L. 'V.I. Lenin i Sozdanie Sovetskikh Komandnykh Kadrov' [V.I. Lenin and the Creation of Soviet Command Cadres]. V-IZh, no. 4 (1965): 3-16.
- Stebakova, L. 'Glavkom Respubliki S.S. Kamenev' [S.S. Kamenev, the Republic's Commander-in-Chief]. V-IZh, no. 4 (1971): 56-58.
- Stepnoi, K. 'Tanki i Operativnoe Iskusstvo' [Tanks and Operational Art]. Voennaia Mysl' [Military Thought], no. 1 (1937): 28-45.
- Stukov, N. Review of L'vov-Varshava [L'vov-Warsaw], by A.I. Egorov. V&R, no. 10 (1929): 129-41.
- Suvenirov, O. 'Esli b ne ta Vakkhanaliia' [Had it Not Been for That Bacchanalia]. V-IZh, no. 2 (1989): 51-59.
- _____. 'Vsearmeiskaya Tragediia' [An Army-Wide Tragedy]. V-IZh, no. 3 (1989): 39-47.
- Svechin, A. 'Gosudarstvennyi i Frontovoi Tyl' [The State and Front Rear]. V&R, no. 11 (1928): 94-108.
- _____. 'Integral'noe Ponimanie Voennoogo Iskusstva' [The Integral Understanding of Operational Art]. Krasnye Zori [Red Dawns], no. 11 (1924): 15-23.

- _____. 'Izuchenie Voennoi Istorii' [The Study of Military History]. V&R, no. 4 (1927): 49-66.
- Svetlishin, N. 'Marshal Sovetskogo Soiuz S.K. Timoshenko' [Marshal of the Soviet Union S.K. Timoshenko]. V-IZh, no. 2 (1975): 43-48.
- _____. 'Problemy Protivovozdushnoi Oborony v Trudakh Sovetskikh Avtorov (1920-1941 gg.)' [Problems of Anti-Aircraft Defence in the Works of Soviet Authors (1920-1941)]. V-IZh, no. 4 (1979): 76-79.
- Tatarchenko, E. 'Operativno-Strategicheskaya Podvizhnost' Vozdushnykh Sil' [The Air Force's Operational-Strategic Mobility]. V&R, no. 7 (1932): 30-35.
- _____. 'Vozdushnyi Flot v Budushchei Voine' [The Air Force in a Future War]. V&R, no. 9 (1929): 32-51.
- Tikhonov, M. 'Nachal'nyi Period Sovremennoi Voiny' [The Beginning Period of a Modern War]. V&R, March-April (1933): 24-29.
- Timoshkov, S. 'Razgrom Iuzhnoi Armii Kolchaka' [The Rout of Kolchak's Southern Army]. V-IZh, no. 3 (1940): 33-56.
- Tomashevskii, Ia. 'K Voprosu o Vosstanovlenii Zheleznnykh Dorog' [On the Question of Restoring Railways]. V&R, May-June (1933): 24-29.
- Triandafillov, V. 'K Piatiletnei Godovshchine Likvidatsii Vrangelia' [On the Fifth Anniversary of Wrangel's Liquidation]. V&R, no. 7-8 (1925): 32-49.
- _____. 'Vozmozhnaia Chislennost' Budushchikh Armii' [The Possible Strength of Future Armies]. V&R, no. 3 (1927): 14-43.
- _____. 'Vzaimodeistvie Mezhduraz. i Iugo-Zap. Frontami vo Vremia Letnego Nastupleniia Krasnoi Armii na Vislu v 1920 g.' [The Interaction Between the Western and Southwestern Fronts During the Red Army's Summer Offensive to the Vistula in 1920]. V&R, no. 2 (1925): 21-51.
- Trifonov, I., and O. Suvenirov. 'Razgrom Kronshtadtskogo Kontrrevoliutsionnogo Miatezha 1921 Goda' [The Defeat of the Kronshtadt Counterrevolutionary Mutiny in 1921]. V-IZh, no. 3 (1971): 88-94.
- Trutko, F. 'Material'noe Obespechenie Operatsii Udarnoi Armii' [Material Supply of a Shock Army's Operation]. V&R, no. 12 (1932): 65-84.
- Tsiffer, R. 'Kharakteristika Predstoiashchei Voiny' [A Description of the Coming War]. V&R, no. 10-11 (1931): 3-19.
- Tukhachevskii, M. 'Novye Voprosy Voiny' [New Problems of War]. V-IZh, no. 2 (1962): 62-77.
- _____. 'O Strategicheskikh Vzgliadakh Prof. Svechina' [On Prof. Svechin's Strategic Views]. In Protiv Reaktsionnykh Teorii na Voennonauchnom Fronte. Kritika Strategicheskikh i Voennoistoricheskikh Vzgliadov Prof. Svechina [Against Reactionary Theories on the Military-Scientific Front. A Criticism of Prof. Svechin's Strategic and Military-Historical Views], ed. K. Bocharov, I. Nizhechek and P. Suslov, 3-16. Moscow: Gosudarstvennoe Voennoe Izdatel'stvo, 1931.
- Ul'ianov, V. 'Razvitie Teorii Glubokogo Nastupatel'nogo Boia v

- Predvoennye Gody' [The Development of the Theory of the Deep Offensive Battle in the Prewar Years]. V-IZh, no. 3 (1988): 26-33.
- Unsigned. 'Voennye Voprosy na VIII S"ezde Partii [Military Questions at the VIII Party Congress']. V-IZh, no. 3 (1984): 19-26.
- Unsigned. 'Zadachi Bol'shevistskoi Kritiki na Voennonauchnom Fronte' [Tasks of Bolshevik Criticism on the Military-Scientific Front]. V&R, no. 1 (1932): 93-96.
- V., P. 'Ispol'zovanie Sredstv Podavleniia v Operatsii Proryva' [Employing Weapons of Suppression in a Breakthrough Operation]. V&R, no. 10-11 (1931): 20-27.
- _____. 'Usilennyi Strelkovyi Korpus pri Proryve' [The Reinforced Rifle Corps in a Breakthrough]. V&R, no. 6 (1931): 3-13.
- _____. 'Usilennyi Strelkovyi Korpus vo Vstrechnom Srazhenii' [The Reinforced Rifle Corps in a Meeting Battle]. V&R, no. 9 (1931): 3-13.
- Vakulich, P. 'Sovremennaia Operatsiia' [The Modern Operation]. In Voina i Voennoe Delo [War and Military Affairs], ed. V.N. Levichev, 546-64. Moscow: Gosudarstvennoe Voennoe Izdatel'stvo, 1933.
- Varfolomeev, N. 'Nastuplenie 18-i Germanskoi Armii Vesnoi 1918 g.' [The German Eighteenth Army's Spring 1918 Offensive]. V&R, no. 7 (1931): 42-70.
- _____. 'Operativnaia Vnezapnost' i Maskirovka' [Operational Surprise and Deception]. V&R, no. 3 (1927): 96-111.
- _____. Podgotovka Operatsii Udarnykh Armii' [Preparing Shock Army Operations]. V&R, no. 3 (1932): 1-13.
- _____. 'Strategicheskoe Narastanie i Istoshchenie v Grazhdanskoi Voine' [Strategic Accumulation and Exhaustion in the Civil War]. In Grazhdanskaia Voina 1918-1921 [The Civil War, 1918-1921], ed. A.S. Bubnov, S.S. Kamenev, and R.P. Eideman, II. 260-80. Moscow: Izdatel'stvo 'Voennyi Vestnik', 1928-30.
- _____. 'Strategiia v Akademicheskoi Podgotovke' [Strategy in an Academic Setting]. V&R, no. 11 (1928): 78-93.
- _____. 'Vstrechnaia Operatsiia' [The Meeting Operation]. V&R, no. 7 (1930): 11-42.
- Vashchenko, P., and V. Runov. 'Voennaia Reforma v SSSR' [The Military Reform in the USSR]. V&R, no. 12 (1989): 33-40.
- Vasilevskii, A. 'Marshal B.M. Shaposhnikov' [Marshal B.M. Shaposhnikov]. V-IZh, no. 9 (1972): 32-37.
- _____. Soldat, Polkovodets' [Soldier, Commander]. V-IZh, no. 10 (1973): 39-43.
- Verkhovskii, A. 'Novaia i Staraia Shkola' [The New and Old School]. V&R, no. 4 (1928): 99-112.
- _____. 'Evoliutsiia Prepodavaniia Taktiki v Voennoi Akademii v 1918-1928 gg.' [The Evolution of Tactical Instruction in the Military Academy, 1918-1928]. V&R, no. 11 (1928): 50-65.
- Vetoshnikov, L. 'Brusilovskii Proryv (Kratkii Operativno-Strategicheskii Ocherk)' [The Brusilov Breakthrough (A Short Opera-

- tional-Strategic Sketch)]. Voennaia Mysl' [Military Thought], no. 7 (193()): 70-91.
- Viktorov, B. 'I Postavili Svoiu Podpis' ...' [And They Signed ...]. V-IZh, no. 4 (1989): 45-51.
- Vishnev, S. 'Ekonomicheskaya Podgotovka k Voine za Rubezhom' [Overseas Economic Preparation for War]. V&R, no. 7 (1928): 3-15.
- _____. Review of The Reformation of War, by J.F.C. Fuller. V&R, no. 1 (1925): 283-87.
- Vol'pe, A. 'Korni Operativnogo Plana Voiny (Vliianie Politicheskikh Faktorov na Strategicheskoe Razvertyvanie Germanii, Frantsii i Rossii v 1914 g.)' [Roots of an Operational War Plan (The Influence of Political Factors on the Strategic Deployment of Germany, France and Russia in 1914)]. V&R, no. 1 (1930): 13-44.
- _____. 'Nekotorye Mysli o Dialektike Voiny' [A few Thoughts on the Dialectic of War]. V&R, no. 5 (1929): 36-54.
- _____. 'Presledovanie v Grazhdanskoi Voine' [Pursuit in the Civil War]. In Grazhdanskaya Voyna 1918-1921 [The Civil War, 1918-1921], ed. A.S. Bubnov, S.S. Kamenev, and R.P. Eideman, II. 233-59. Moscow: Izdatel'stvo 'Voennyi Vestnik', 1928-30.
- _____. Review of Strategiia [Strategy], 2nd ed., by A.A. Svechin. V&R, no. 5 (1927): 182-86.
- Voronkov, V. 'Kontrudar M.V. Frunze na Vostochnom Fronte' [M.V. Frunze's Counterblow on the Eastern Front]. V&R, July-Aug. (1933): 17-38.
- _____. 'Razgrom Kolchaka' [The Rout of Kolchak]. V&R, March-April (1934): 58-64.
- Voskanov, G. 'O Kontrudare Iugo-Zapadnogo Fronta v Mae-Iiune 1920 g.' [On the Southwestern Front's May-June 1920 Counterblow]. V&R, May-June (1934): 50-66.
- Zakharov, M. 'Kommunisticheskaya Partiya i Tekhnicheskoe Perevooruzhenie Armii i Flota v Gody Predvoennykh Piatiletok' [The Communist Party and the Army and Fleet's Technical Rearmament During the Prewar Five-Year Plans]. V-IZh, no. 2 (1971): 3-12.
- _____. 'O Teorii Glubokoi Operatsii' [On the Theory of the Deep Operation]. V-IZh, no. 10 (1970): 10-20.
- Zakutnyi, D. Review of Taktika [Tactics], by S. Smirnov. V&R, Sept.-Oct. (1934): 122-24.
- Zavalishin, N. 'Vstrechi s Marshalom A.I. Egorovym' [Meetings with Marshal A.I. Egorov]. V-IZh, no. 11 (1963): 72-75.
- Zhemaitis, F. 'Proryv Pol'skogo Fronta 1-i Konnoi Armiei' [The Piercing of the Polish Front by the First Cavalry Army]. V-IZh, no. 6 (1940): 3-23.
- Zhigur, Ia. 'Angliia i SSSR' [England and the USSR]. V&R, no. 4 (1925): 7-14.
- _____. 'Operativnyi Plan Voiny Shliffena i Sovremennaya Deistvitel'nost'' [Schlieffen's War Plan and Modern Reality]. V&R, no. 6 (1929): 3-16; no. 7 (1929): 3-14.
- _____. 'Perspektivy Sozdaniia Antisovetskogo Bloka' [The Prospects of Creating an Anti-Soviet Bloc]. V&R, no. 2 (1925):

137-48.

- _____. 'Proryv Oboronitel'noi Systemy po Opytu Mirovoi Voiny' [Breaking Through a Defensive System According to the Experience of the World War]. V&R, Jan.-Feb. (1935): 74-89.
- _____. 'Vliianie Sovremennoi Voennoi Tekhniki na Kharakter Budushchikh Voin' [The Influence of Modern Military Equipment on the Character of Future Wars]. V&R, no. 8 (1927): 14-26.
- _____. 'Zadachi Usileniia Tekhniki Krasnoi Armii' [The Tasks of Strengthening the Red Army's Equipment]. V&R, no. 10 (1928): 45-66; no. 12 (1928): 21-33.
- Zhilin, P. 'Diskussii o Edinoi Voennoi Doktrine' [The Discussions About a Unified Military Doctrine]. V-IZh, no. 5 (1961): 61-74.
- _____. 'Kharakternye Cherty Sovetskoi Voennoi Strategii v Gody Grazhdanskoi Voiny' [Characteristic Features of Soviet Military Strategy During the Civil War]. V-IZh, no. 2 (1973): 21-33.
- _____. 'Nastuplenie Russkoi Armii Letom 1917 Goda v Voenno-Politicheskikh Planakh Antanty' [The Russian Army's Summer 1917 Offensive in the Entente's Military-Political Plans]. V-IZh, no. 3 (1982): 59-66.
- Zhuravlev, N. 'Operativnoe Sosredotochinie' [Operational Concentration]. V&R, Nov.-Dec. (1935): 41-47.
- Zimin, Ia. 'V.I. Lenin i Sozdanie Vysshikh Organov Voenного Rukovodstva Sovetskogo Gosudarstva (1917-1920 gg.)' [V.I. Lenin and the Creation of the Soviet State's Higher Organs of Military Leadership (1917-1920)]. V-IZh, no. 6 (1968): 3-16.
- Zotov, S. 'Proryv Pol'skogo Fronta' [The Breakthrough of the Polish Front]. V&R, May-June (1935): 36-45.

